

ARTS & SCIENCE

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S. Wong, P. Yates

Professional Affiliates*

W. J. Arnold, R. Bell, S. Boechler,
H. Brenneman, R. Brown, S. Darcangelo,
J. Elias, R. B. Gordon, S. Hillis, D. Jackson,
D. Jurgens, R. Kinzel, D. Lake, W. Nelson,
G. Pancyr, G. Stevens, M. Vandergoot

ST. THOMAS MORE COLLEGE

Associate Professors

B. M. Chartier, G. R. Farthing, T. Marche

Assistant Professors

P. McDougall, T. Zolner

DEPARTMENT OF RELIGIOUS STUDIES

Assistant Professor and Head

J. G. Mullens

Professor

B. M. Sinha

Associate Professor

T. Selover

Associate Members

D. Jobling, J. W. Kleiner, M. K. Leung,
W. Richards, S. P. Sharma

Sessional Lecturers*

C. Beish, S. Dunbar, L. MacDonald-Hicks,
L. Nahachewsky, S. Saini, E. Shia, M. Tai

ST. THOMAS MORE COLLEGE

Associate Professor

Rev. M. Tataryn

Assistant Professor

M. A. Beavis

Sessional Lecturers*

R. Pavey, Rev. I. Wilson

DEPARTMENT OF SOCIOLOGY

Professor and Head

T. L. Wotherspoon

Professors

A. B. Anderson, B. S. Bolaria,
H. D. Dickinson, D. A. Hay, P. S. Li,
B. J. Schissel, S. P. Wakil

Associate Professors

Z. Baber, P. Elabor-Idemudia, M. D. Mehta,
L. M. Samuelson, L. Zong

Assistant Professor

M. E. Gertler

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J. G. Mullens

Sessional Lecturers*

J. Barak, R. Biezenski, P. Blain, C. Braun,
C. Brooks, K. Cram, L. Doerkenen,
J. Doherty, L. Ehrlich, A. Graumans,
D. Iliopoulou, G. Jangula, E. Kempthorne,
D. Lanceley, N. Poon, B. Puk, S. Robertson,
R. Schriml, B. L. Strelloff, R. Torgerson,
W. Wilson, J. Worrell

ST. THOMAS MORE COLLEGE

Professors

W. B. Denis, J. R. Thompson

Assistant Professors

R. J. Griffin, E. Valenzuela

Instructor

W. Wilson

Sessional Lecturers*

C. Brooks, L. Eisler, E. Kempthorne, P. Lee,
B. Puk

DEPARTMENT OF WOMEN'S AND GENDER STUDIES

Associate Professor and Head

C. L. Biggs

Professors

L. Forsyth, D. Relke

Associate Professor

P. J. Downe

Associate Members

H. A. Clark, M. Day, P. Elabor-Idemudia,
S. Gingell, A. Harding, W. Schissel,
L. Sippola

Sessional Lecturer*

K. Morrison, J. St. John, W. Schissel,
K. Willson, W. Wilson

INTERDISCIPLINARY PROGRAMS ADMINISTRATIVE COMMITTEES

Faculty members on these Committees are listed at the beginning of each program description for the following programs:

Classical and Near Eastern Archaeology
Classical, Mediaeval and Renaissance Studies

Environmental Earth Sciences

Food Science

International Studies

Land Use and Environmental Studies
Linguistics (see Department of Languages and Linguistics)

Mathematical Physics

Palaeobiology

Public Administration

Regional and Urban Development

MEMBERS FROM OTHER FACULTIES

COLLEGE OF COMMERCE

V. L. Pearson, Dean

L. Hammond Ketilson, Associate Dean,
Director of the Centre for International
Business Studies and Associate Professor
of Management and Marketing

A. Renny, Assistant Dean and Assistant
Professor of Accounting

C. Boyd, Professor and Head of
Management and Marketing

J. R. Edmonds, Associate Professor and
Head of Industrial Relations and
Organizational Behaviour

G. D. Feltham, Professor and Head of
Accounting

G. F. Tannous, Professor and Head of
Finance and Management Science

COLLEGE OF EDUCATION

K. G. Jacknicke, Dean and Professor of
Curriculum Studies

V. J. Hajnal, Associate Dean and Associate
Professor of Educational Administration

R. D. Fram, Assistant Dean (Undergraduate
Programs), and Associate Professor of
Curriculum Studies

T. J. Gambell, Assistant Dean (Student
Affairs) and Professor of Curriculum
Studies

D. B. Cochrane, Professor and Head of
Educational Foundations

V. L. Schwan, Professor and Head of
Educational Psychology and Special
Education

J. L. K. Latshaw, Associate Professor and
Head of Curriculum Studies

COLLEGE OF KINESIOLOGY

M. Tremblay, Dean and Professor

D. A. P. Fry, Associate Dean and Associate
Professor

COLLEGE OF LAW

R. Fritz, Associate Dean

COLLEGE OF PHARMACY AND NUTRITION

J. R. Dimmock, Professor

FULL-TIME FACULTY

Department of Anatomy and Cell Biology

Department of Biochemistry

Department of Microbiology and Immunology

Department of Physiology

*Denotes non-members of faculty.

GENERAL INFORMATION

The College of Arts and Science is the largest college on campus, with an enrolment of over 7000 students. It is also the most diverse, composed of 22 departments, and 4 affiliated departments. At one time or another most students of the University of Saskatchewan take classes in the College. The College of Arts and Science offers a variety of undergraduate programs, designed to give students the opportunity to learn, analyze, reason, and communicate effectively through the study of literature, language, society and nature.

IMPORTANT DATES

September 18

Last day for making changes in registration for first-term classes and classes extending over both terms.

November 15*

Last day for withdrawing from first-term classes without academic penalty.

January 17

Last day for making changes in registration for second-term classes.

February 15*

Last day for withdrawing from classes extending over two terms without academic penalty.

March 15*

Last day for withdrawing from second-term classes without academic penalty.

*Withdrawing from a class after these dates means the College will assign a grade of Withdraw/Fail (WF) in the class and the grade will be calculated as 30%.

ADMISSION

The general procedures for application and the requirements for admission to the College of Arts and Science are outlined under the Admission and Application Procedure in the General Information section of the *Calendar*.

Applicants who have been admitted with a subject deficiency must remove the deficiency before they can proceed to the second year. The deficiency may be waived if the student achieves a Cumulative Percentage Average (CPA) of 65% in the first 30 credit units of study, unless the deficient course is required as a prerequisite to university courses. Such applicants should contact the Office of the Dean during their first year of study.

EDUCATION EQUITY

The College of Arts and Science has been granted permission by the Saskatchewan Human Rights Commission to exempt students of Aboriginal descent from the Regular and Special (Mature) Admission quotas. Applicants who have complete secondary level standing (24 credits) or equivalent with a minimum overall average of 65% in the required subjects and those who qualify for Special (Mature) Admission are encouraged to apply for admission to the College.

ABORIGINAL STUDENT SERVICES

It is important for Aboriginal applicants to identify themselves by completing the Education Equity sections on both the Application for Admission and annually on their registration information sheet, so that they can be informed about the various support services and registration assistance offered by the College and the University.

The Coordinator of Academic Programs for Aboriginal Students in the College of Arts and Science invites and encourages all Aboriginal students to utilize the services offered by this Office. All contact with students is confidential and will in no way affect academic standing. Students have access to academic counselling, program advising, funding agency information, support programs and networking with other Aboriginal students. The Office works in partnership with other groups to establish methods to promote the successful completion of academic programs by Aboriginal students.

TRANSFER STUDENTS FROM OTHER COLLEGES AND RETURNING STUDENTS

Students transferring from another college to the College of Arts and Science, or returning to the College after an absence of one or more years or after the awarding of a degree, must apply to Admissions, Office of the Registrar for admission to the College of Arts and Science. Transfer students from other colleges at the University of Saskatchewan should be aware that many courses from other colleges transfer to Arts and Science programs (e.g., statistics, mathematics, chemistry, biology, English, etc.). All such courses must be included in the transfer student's Arts and Science program, and all grades from these courses will be included in the student's average for

admission, promotion and graduation purposes. Transfer students must have a CPA of 60% (as calculated by the College, based on courses which transfer to Arts and Science). Once an application for admission is accepted, the student should consult an academic advisor in the Office of the Dean, either in person or in writing, before registering.

AVAILABILITY OF PROGRAMS

The College of Arts and Science is committed to delivering its courses to all qualified applicants admitted to the College to the extent that resources allow. For example, depending on resources, departments may have to restrict access to senior courses.

DATE OF COMMENCEMENT OF A PROGRAM

Students must comply with the regulations and degree requirements in effect at the time of their first registration in a course which credits toward their major. Arts and Science courses include those courses taught in other colleges for which credit is routinely granted by the College.

Students have the option to meet revised requirements subsequently approved by the College. Students in programs which require courses no longer taught by the department must consult with the department about how to complete degree requirements.

It is expected that students will complete their degree programs within 10 years of their first registration. Students taking more than 10 years to complete their programs will usually be required to meet current degree and graduation requirements.

Once a student has received an Arts and Science degree, any subsequent degree or certificate program commences in the first academic session in which study begins for the second degree or certificate alone.

ARTS AND SCIENCE DEGREES & CERTIFICATES

The College of Arts and Science offers the following degrees and certificates:

- (1) A four-year (120 credit unit) program leading to the B.A. or B.Sc. Four-year;
- (2) A three-year (90 credit unit) program leading to the B.A. or B.Sc. Three-year;
- (3) A four-year (120 credit unit) program leading to the B.A. Honours or B.Sc. Honours;
- (4) A four-year (132 credit unit) program leading to the Bachelor of Music degree;
- (5) Four-year (120 credit unit plus exhibition) program leading to the Bachelor of Fine Arts degree in studio art;
- (6) Four-year (120 credit unit) program leading to the Bachelor of Fine Arts in drama;
- (7) Advanced and Honours Certificates for students who have already received a B.A. or B.Sc. Four-year or Honours degree;

(8) Post Degree Specialization Certificate, for students who have already completed a recognized degree. (PDSC programs are available in Computer Science and Economics).

Students who have already completed or are in the process of completing a degree from the College of Arts and Science or another college, may obtain a second degree from the College of Arts and Science. For more information, see *Second Degree Programs* in this section.

In addition to the above certificate and degree programs, students may complete pre-professional coursework for the following programs:

Dentistry
Education
Journalism
Law
Medicine
Nutrition
Occupational Therapy
Optometry
Pharmacy
Physical Therapy
Social Work
Theology
Veterinary Medicine

PROGRAM TYPES FOR ACADEMIC MAJORS

Students in the B.A. or B.Sc. degree programs follow one of the following Program Types:

Program Type A - for students majoring in a subject in the area of Humanities.

Program Type B - for students majoring in a subject in the area of Social Sciences.

Program Type C - for students majoring in a subject in the area of Natural Science.

Program Type D - for students majoring in a subject in the area of Fine Arts.

Normally, courses offered by the College are distributed among the four program types listed above.

To complete an Arts & Science degree, students must select an array of courses from the various program types. This provides students with the broad education implied by degree in the College of Arts & Science.

PROGRAM TYPES FOR INTERDISCIPLINARY PROGRAM MAJORS

An Interdisciplinary Program is an academic program which permits students to study beyond the boundaries of traditional disciplines or disciplinary programs, to explore in depth relationships among certain disciplines and to integrate the knowledge gained into a central theme.

The College offers Interdisciplinary Programs which require students to take a variety of prescribed and elective courses from several disciplines.

Biochemistry and Biotechnology - Natural Sciences (Type C)

Biology and Biotechnology - Natural Sciences (Type C)

Cell Biology and Biotechnology - Natural Sciences (Type C)

Classical and Near Eastern Archaeology - Humanities (Type A)

Classical, Mediaeval and Renaissance Studies (Type A)

Environmental Earth Sciences - Natural Sciences (Type C)

Food Science - Natural Sciences (Type C)

International Studies - Humanities (Type A) or Social Sciences (Type B)

Land Use and Environmental Studies - Social Sciences (Type B) or Natural Sciences (Type C)

Linguistics - Humanities (Type A) or Social Sciences (Type B)

Mathematical Physics - Natural Sciences (Type C)

Microbiology and Biotechnology - Natural Sciences (Type C)

Palaeobiology - Natural Sciences (Type C)

Public Administration - Social Sciences (Type B)

Rural and Urban Development - Social Sciences (Type B)

Sociology of Biotechnology - Social Sciences (Type B)

MINOR AND RECOGNITION PROGRAMS

Minors are available in many disciplines, on completion of 18 to 24 credit units as specified by the department. Not all disciplines offer minors. Refer to the specific subject in the *Calendar* for further information.

Recognition in a Language is available in French, German, Russian, Spanish and Ukrainian upon completion of 18 credit units as specified by the Department of Languages and Linguistics.

The minor or recognition must be completed in conjunction with a major in a different subject or an interdisciplinary program, and must be completed at the time of graduation with an Arts and Science degree or an advanced or honours certificate.

OTHER COURSES OFFERED

Depending on the availability of resources, courses are offered in Chinese, Cree, Hebrew, Literature, Pharmacology and Sanskrit. Courses in these areas may not be offered annually or in sufficient number to make up a major or minor. Such courses may be taken as electives. See *Programs*.

SELECTION OF COURSES

REGISTRATION

All students should confirm their course numbers, sections and laboratories through U-STAR. Students are responsible for ensuring that they have the prerequisites and are attending the correct course, number, section and term for which they have registered.

Students are responsible for ensuring that they meet degree and program requirements. Students should check all regulations with respect to degree requirements by consulting the *Calendar*. They can also choose to meet with an academic advisor in the Office of the Dean

and are strongly encouraged to see an advisor in the department of their major during March of each year.

PREREQUISITES

Students enrolled in courses for credit are required to have satisfied the stated prerequisites or, in exceptional cases, to have obtained a prerequisite waiver approved by the instructor, department head and the Office of the Dean in the College of Arts and Science. Prerequisite waivers must be approved **prior** to attending the class. Students must have a minimum Arts and Science average of 65%. Students who do not have the prerequisites or approved prerequisite waivers may have their registration cancelled at any time. These students may not receive credit regardless of whether they successfully complete the course.

FIRST-YEAR STUDENTS

See the General Information section of the *Calendar* for registration details.

(1) Please refer to the departmental section of the *Calendar* for information on major requirements. For example, a student intending to major in biology should see the section of the Department of Biology.

(2) First-year students may register in 3 - 30 credit units (a maximum of 15 credit units per term) in the Regular Session (September to April), with the exception of students in the Bachelor of Music program. Students in this program may take up to 33 credit units.

(3) First-year students usually register only in junior courses (100-level) in their first term (September to December). Depending on prerequisite requirements, some senior courses are open to first-year students in the second term (January to April), such as 200-level CHEM courses, some STATS courses, etc. Students may register only in the courses for which prerequisites have been satisfied. For example, students must complete Chemistry 30 before registering in CHEM 112. High school prerequisites for university courses are listed in the course descriptions.

(4) See the College of Arts and Science booklet *How to Register for First-Year Students* for advice on registering in first year. This guide is included in the registration package sent to all first-year students by the Office of the Registrar.

UPPER-YEAR STUDENTS

An upper-year student is one who has successfully completed 18 or more credit units which are acceptable to a program in the College of Arts and Science.

Department Advising: Each year, students who intend to return for the next Regular Session should consult an advisor in the department of their major. The last three weeks of March and the month of April are designated as a time for students to participate in Department Advising. Students may go to more than one department if they have not yet decided on a major. The procedures for advising are announced during classes. Students pick up a copy of their academic record at the Office of the Dean (Records Office), then

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visit the department for advice on courses to be selected for the following year.

For specific information on major requirements and on other cognate courses required or recommended for upper year students, consult the department advisor and refer to the departmental section of the *Calendar*. For example, a student intending to major in biology should consult an advisor in the Biology department and should read the Biology section of the *Calendar*.

Students who attended during the last Regular Session and are eligible to return, and those accepted to upper year studies in the College of Arts and Science, will receive registration materials in late June. Students who received a degree at Spring Convocation must reapply for admission if they intend to take additional courses in the College.

MAXIMUM NUMBER OF CREDIT UNITS PER TERM

Normally students register in a maximum of 30 credit units (15 credit units per term) in a Regular Session. However, upper-year students with a Cumulative Percentage Average (CPA) of at least 70% on a minimum of 30 credit units completed previously, can receive permission from the Office of the Dean (Records Office) to add a maximum of 6 additional credit units to their program.

JUNIOR AND SENIOR COURSES

Junior courses are numbered in the 100's. Senior courses are numbered 200 or higher. Depending on the subject, there may be limitations to the number of junior credit units allowed. If a department offers more than 6 credit units in 100-level courses, students should see Courses and/or Programs to determine whether they will be allowed credit for additional junior courses.

DEAN'S LIST

Students with averages in the top 5% of each program type will be eligible to be included on the Dean's List which will be posted annually. Students named to the Dean's List will be notified. To be eligible students must have completed at least 30 credit units in the last regular session. No application is required.

CHANGES IN REGISTRATION

Changes in registration (to add or drop a class or to change a section) are not official until completed through U-STAR.

Students may drop a class at any time, but first-term classes dropped after November 15, second-term classes dropped after March 15, and classes extending over both terms dropped after February 15, will be regarded as failed classes (withdraw/fail). Courses dropped after the withdrawal deadline are assigned a grade of 30% in the calculation of the student's CPA.

COMPLETE CANCELLATIONS

All withdrawals from classes must be completed using U-STAR. Students considering a complete withdrawal from the College of Arts and Science are strongly encouraged to discuss the implications of such a decision with an advisor in the

Office of the Dean, Room 235 Arts. No appointment is necessary.

B.A. AND B.SC. DEGREE REQUIREMENTS

Before a B.A. or B.Sc. degree can be awarded, the College requires the student to complete specific courses and meet certain regulations. Refer to the *Degree Requirements Chart* on the following page to find the desired major, then follow that program type to choose courses. Program types for Interdisciplinary Programs are listed above.

REQUIREMENTS 1 TO 5 (Distribution Requirements)

Courses to meet Requirements 1 to 4 in the Programs Type A, B, and C, and Requirements 1 to 5 in Program Type D must be selected from the following list and are subject to the following conditions:

(1) No course may be used simultaneously to fulfill two or more of Requirements 1 to 5. For example, if FR 121.3 and FR125.3 are used to fulfill the Language requirement, they may not be used to fulfill the Humanities requirement.

(2) No more than 6 credit units from one subject may be used in Requirements 1 – 4 in Program Types A, B, and C or in Requirements 1-5 of Program Type D. For this purpose, courses which may be credited toward a specific major are usually considered to be courses from the same subject. Examples of this regulation include: (1) if English 110.6 is used in the Language Requirement, no other course in English may be used in the Humanities Requirement; and (2) to satisfy the Natural Science requirement, students may CHEM 112.3 and one of 115.3, CHEM 250.3 or BIOCH 200.3.

(3) Senior-level courses that require a 6 credit unit prerequisite course (or two 3 credit units courses) which have been used in Requirement 1 in Program Type C may not be used to satisfy this same requirement. For example, ANAT 200.3 may not be used in Requirement 1 if BIOL 110.6 (its prerequisite) has been used.

Humanities

Only the following courses meet the Humanities Requirement in Programs A, B, C, and D:

CHIN 111.6; CLASS 110.3, 111.3; CREE 101.6, 120.6; ENG 110.6, 111.3, 112.3, 113.3, 114.3; FR 103.3, 106.3, 121.3 (or 122.3), 125.3, 128.3, 181.3, 186.3; GERM 114.3, 117.3; GREEK 112.3, 113.3; HEB 111.6; HIST 110.3, 111.3, 113.6, 114.6, 120.6, 121.3, 122.3, 140.6, 148.6, 150.6, 151.3, 152.3, 170.6, 180.3; LATIN 112.3, 113.3; LIT 100.6; PHIL 110.6, 120.3, 133.3, 140.3; RELST 110.6; RUSS 114.3, 117.3; SANSK 101.6; SPAN 114.3, 117.3; UKR 114.3, 117.3; WGST 110.6 or any approved senior-level humanities course provided that not more than 6 credit units in one subject are used for the Humanities or Languages Requirements.

Languages

Only the following courses meet the Language Requirement in Programs A, B, C, and D:

CHIN 111.6; CREE 101.6, 120.6; ENG 110.6, 111.3, 112.3, 113.3, 114.3; FR 103.3, 106.3, 121.3 (or 122.3), 125.3, 128.3; GERM 114.3, 117.3; GREEK 112.3, 113.3; HEB 111.6; LATIN 112.3, 113.3; LIT 100.6; RUSS 114.3, 117.3; SANSK 101.6; SPAN 114.3, 117.3; UKR 114.3, 117.3 or any approved senior-level language course provided that not more than 6 credit units in one subject are used for the Humanities or Languages Requirement.

Social Sciences

Only the following courses meet the Social Science Requirement in Programs A, B, C, and D:

ANTH 111.3; ARCH 112.3, 116.3; ECON 111.3, 114.3; GEOG* 113.3, 114.3; LING 111.3, 112.3; NATST 100.3, 110.6; POLST 110.6, 111.3, 112.3; PSY 110.6; SOC 110.6; WGST 110.6 or any approved senior-level social science course provided that not more than 6 credit units in one subject are used for the Social Science Requirement. Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233 and 234, SOC 240, etc.).

Natural Sciences

Only the following courses meet the Natural Science Requirement in Programs A, B, and D. **Only the courses in bold, italic type meet the Natural Science Requirement in program C:**

ASTRO 101.6; BIOL 107.6, 110.6; CHEM 112.3, 115.3; CMPT 100.3, 101.3, 111.3 or 112.3, 115.3; GEOG* 101.3, 102.3, 111.3, 112.3; GEOL 108.3, 109.3, 121.3, 122.3; MATH 101.3, 110.3, 112.3, or 116.3; PHYS 111.6, 121.6, 128.3; STATS 103.3 or any approved senior-level natural science course provided that not more than 6 credit units in one subject are used for the Natural Science Requirement. Students may use only 6 credit units in mathematics and statistics toward the Natural Science Requirement.

*Students may use only 6 credit units in Geography in total, whether toward the Natural Science requirement or Social Science requirement.

Fine Arts

Only the following courses meet the Fine Arts Requirement in Program D:

ART 111.6, 112.6, 113.6, 115.6, 136.3, 141.3, 161.3; ARTH 120.3, 121.3; DRAMA 100.6, 104.6, 110.3, 113.3, 116.3, 117.3; MUSIC 101.3, 103.3, 105.3, 113.2, 114.2, 117.1, 119.1, 140.3, 141.3 or any approved senior-level fine arts course provided that not more than 6 credit units in one subject are used for the Fine Arts Requirement.

General Requirement

Students in Programs A, B, and C are required to complete 6 credit units of Arts and Science courses from an area outside their Program Type. With a few exceptions, any junior or senior course or combination of courses from the humanities, social sciences, natural sciences or fine arts,

outside the program type of the major, can be used for this requirement.

CLASS 103 and 104, all statistics courses, and courses from other colleges cannot be used for the General Requirement.

REQUIREMENT 6 (MAJOR)

For a listing of the courses required for the major you have chosen see *Descriptions of Courses and Programs*.

Three-year degree students may take up to 42 credit units in courses in the same subject area (at least 48 credit units must be in other courses) Four-year and Honours students* may take up to 60 credit units in courses in the same subject area (at least 60 credit units must be in other courses). All courses completed in the chosen major are included under this requirement.

*Geology majors may take up to 72 credit units in GEOL courses; at least 48 credit units must be in other courses.

REQUIREMENT 7 (ELECTIVES)

This requirement allows students to choose courses out of interest to fulfill admission requirements for other Colleges, to strengthen their understanding of their major, or to complete a minor or a recognition. Some departments require students to take certain electives in cognate subjects to the major. All Arts and Science courses not used in requirements 1-6 will be included under this requirement.

Students must ensure they have enough senior courses (200-level or higher). Three-year degree students must take at least 42 credit units in senior courses; Four-year and Honours degree students must take at least 66 credit units in senior courses.

B.A. OR B.SC. HONOURS PROGRAM

The Honours Program is intended for students who wish for more intensive training in one or more subjects and who are able to meet the average requirements. It is especially suitable for those who plan to proceed to graduate study leading to the degrees of Master of Arts (M.A.), Master of Science (M.Sc.) and Doctor of Philosophy (Ph.D.).

To earn the degree of B.A. Honours or B.Sc. Honours a student must have credit for a minimum of 120 credit units. In addition, some programs require students to pass an honours examination.

Every Honours Program (whether Single Honours, Double Honours or General Honours) must include Requirements 1 to 5 of Program Types A, B, C or D, whichever is appropriate, of the program leading to the B.A. or B.Sc. degree. Not more than 60 credit units of the courses comprising the program may be in any one subject*, and of the 120 credit units at least 66 credit units must be at the senior level.

*Geology majors may take up to 72 credit units in GEOL courses.

Single Honours Programs: In the case of a Single Honours Program, in which one concentrates in a single subject, at least 48 credit units will normally be taken in this subject; other courses may be required

Degree Requirements

Bachelor of Arts & Bachelor of Science

Three-year degree (90 credit units) • Four-year degree (120 credit units) • Honours degree (120 credit units)

PROGRAM TYPES A, B, C, & D			
Type A	Type B	Type C	Type D
<p>B.A. - Humanities - Majoring in: English French German History Philosophy</p> <p style="text-align: right;">Religious Studies Russian Spanish Ukrainian</p>	<p>B.A. - Social Sciences - Majoring in: Anthropology Archaeology Business Economics Economics Geography (Human)</p> <p style="text-align: right;">Native Studies Political Studies Psychology Sociology</p>	<p>B.Sc. - Natural Sciences - Majoring in: Anatomy Archaeology Biochemistry Biology Chemistry Computer Science Geography (Physical)</p> <p style="text-align: right;">Geology Geophysics Mathematics Microbiology Physics Physiology Statistics</p>	<p>B.A. - Fine Arts - Majoring in: Art (Art History or Studio Art) Drama Music</p>
REQUIREMENT 1			
<p>1 - Humanities Requirement 12 credit units from the Humanities, selected from the courses listed on the previous page (at most, 6 credit units in one subject).</p>	<p>1 - Social Science Requirement 12 credit units from the Social Sciences, selected from the courses listed on the previous page (at most, 6 credit units in one subject).</p>	<p>1 - Natural Science Requirement 18 credit units from the Natural Sciences, selected from the courses listed in <i>bold, italic type</i> on the previous page (at most, 6 credit units in one subject).</p>	<p>1 - Fine Arts Requirement 12 credit units which must be selected from two different subjects from the Fine Arts, selected from the courses listed on the previous page (at most, 6 credit units in one subject).</p>
REQUIREMENT 2			
<p>2 - Languages Requirement 6 credit units from the Languages, selected from the courses listed on the previous page.</p>	<p>2 - Humanities Requirement 6 credit units from the Humanities, selected from the courses listed on the previous page.</p>	<p>2 - Humanities requirement 6 credit units from the Humanities, selected from the courses listed on the previous page.</p>	<p>2 - Humanities Requirement 6 credit units from the Humanities, selected from the courses listed on the previous page.</p>
REQUIREMENT 3			
<p>3 - Natural Sciences Requirement 6 credit units from the Natural Sciences, selected from the courses listed on the previous page.</p>	<p>3 - Natural Sciences Requirement 6 credit units from the Natural Sciences, selected from the courses listed on the previous page.</p>	<p>3 - Social Science Requirement 6 credit units from the Social Sciences, selected from the courses listed on the previous page.</p>	<p>3 - Natural Sciences Requirement 6 credit units from the Natural Sciences, selected from the courses listed on the previous page.</p>
REQUIREMENT 4			
<p>4 - Social Sciences Requirement 6 credit units from the Social Sciences, selected from the courses listed on the previous page.</p>	<p>4 - Languages Requirement 6 credit units from the Languages, selected from the courses listed on the previous page.</p>	<p>4 - Languages Requirement 6 credit units from the Languages, selected from the courses listed on the previous page.</p>	<p>4 - Languages Requirement 6 credit units from the Languages, selected from the courses listed on the previous page.</p>
REQUIREMENT 5			
<p>5 - General Requirement 6 credit units from Area of Fine Arts, Area of Social Sciences or Area of Natural Sciences</p>	<p>5 - General Requirement 6 credit units from Area of Fine Arts, Area of Humanities or Area of Natural Sciences</p>	<p>5 - General Requirement 6 credit units from Area of Fine Arts, Area of Humanities or Area of Social Sciences</p>	<p>5 - Social Sciences Requirement 6 credit units from the Social Sciences, selected from the courses listed on the previous page.</p>
REQUIREMENT 6			
<p>6 - Major Requirement B.A. Four-year - 30 or more senior credit units in a subject chosen under the Humanities or Languages requirement, above. These must be selected to complete the department's requirements of a 36 or more credit unit major. B.A. Three-year - 24 or more senior credit units in a subject chosen under the Humanities or Languages requirement, above. These must be selected to complete the department's requirements of a 30 or more credit unit major. B.A. Honours - Usually 42 to 54 credit units in a subject chosen under the Humanities or Languages requirement above. See department requirements.</p>	<p>6 - Major Requirement B.A. Four-year - 30 or more senior credit units in a subject chosen under the Social Science requirement, above. These must be selected to complete the department's requirements of a 36 or more credit unit major. B.A. Three-year - 24 or more senior credit units in a subject chosen under the Social Science requirement, above. These must be selected to complete the department's requirements of a 30 or more credit unit major. B.A. Honours - Usually 42 to 54 credit units in a subject chosen under the Social Science requirement above. See department requirements.</p>	<p>6 - Major Requirement B.Sc. Four-year - 30 or more senior credit units in a subject chosen under the Natural Science requirement above. These must be selected to complete the department requirements of a 36 or more credit unit major. B.Sc. Three-year - 24 or more senior credit units in a subject chosen under the Natural Science requirement, above. These must be selected to complete the department's requirements of a 30 or more credit unit major. B.Sc. Honours - Usually 42 to 54 credit units in a subject chosen under the Natural Science requirement above. See department requirements. B.Sc. students may major in anatomy, archaeology, biochemistry, geography (physical), microbiology or physiology. See department requirements.</p>	<p>6 - Major Requirement B.A. Four-year - 30 or more credit units in a subject chosen under the Fine Arts requirement, above. These must be selected to complete the department's requirements of a 36 or more credit unit major. B.A. Three-year - 24 or more credit units in a subject chosen under the Fine Arts requirement, above. These must be selected to complete the department's requirements of a 30 or more credit unit major. B.A. Honours - Usually 42 to 54 credit units in a subject chosen under the Fine Arts requirement above. See department requirements.</p>
REQUIREMENT 7			
<p>7 - Electives Requirement B.A. Four-year & Honours - Electives as required, subject to the condition that of the 120 credit units required for the degree, not more than 60 may be in any one subject and not more than 54 may be at the junior level; at least 66 credit units must be at the senior level. B.A. Three-year - Electives as required, subject to the condition that of the 90 credit units required for the degree not more than 42 may be in any one subject and not more than 48 may be at the junior level; at least 42 credit units must be at the senior level.</p>	<p>7 - Electives Requirement B.A. Four-year & Honours - Electives as required, subject to the condition that of the 120 credit units required for the degree, not more than 60 may be in any one subject and not more than 54 may be at the junior level; at least 66 credit units must be at the senior level. B.A. Three-year - Electives as required, subject to the condition that of the 90 credit units required for the degree not more than 42 may be in any one subject and not more than 48 may be at the junior level; at least 42 credit units must be at the senior level.</p>	<p>7 - Electives Requirement B.Sc. Four-year & Honours - Electives as required, subject to the condition that of the 120 credit units required for the degree, not more than 60 may be in any one subject* and not more than 54 may be at the junior level; at least 66 credit units must be at the senior level. *Students majoring in a Four-year or Honours program in Geology may take up to 72 credit units in GEOL courses. B.Sc. Three-year - Electives as required, subject to the condition that of the 90 credit units required for the degree not more than 42 may be in any one subject and not more than 48 may be at the junior level; at least 42 credit units must be at the senior level.</p>	<p>7 - Electives Requirement B.A. Four-year & Honours - Electives as required, subject to the condition that of the 120 credit units required for the degree, not more than 60 may be in any one subject and not more than 54 may be at the junior level; at least 66 credit units must be at the senior level. B.A. Three-year - Electives as required, subject to the condition that of the 90 credit units required for the degree not more than 42 may be in any one subject and not more than 48 may be at the junior level; at least 42 credit units must be at the senior level.</p>

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either in the same subject or in cognate subjects.

Double Honours Programs: Double Honours Programs may be taken in combinations of two subjects. In this program at least 36 credit units will normally be taken in each subject. The two departments together may specify up to 84 credit units.

General Honours Programs: General Honours Programs may be taken in allowable combinations of three subjects.

Of the 120 credit units required for a General Honours, at least 84 will be distributed amongst three subjects. The student will take at least 36 and not more than 48 credit units from among the courses prescribed for Honours in one subject and select the remainder from other subjects to build an individual program which would satisfy a particular academic interest. The student will take not more than 30 credit units in each of the other subjects. The program being considered must be approved by each of the three departments and the Office of the Dean.

Admission to an Honours Program: A student interested in entering an Honours Program should consult advisors in the department or departments concerned before registering for their second year. In this way a program of studies for the second year may be planned in accordance with requirements of the proposed Honours Program. Formal admission to an Honours Program is considered upon application and is based on departmental recommendation and College approval. Application for admission to Honours is not considered until successful completion of at least 60 credit units with a cumulative percentage average of at least 70% overall and at least 70% in the subject or subjects of honours. In some programs higher admission averages may be imposed.

The average is calculated from the grades obtained on all courses taken, including failures, that carry credit toward the B.A. or B.Sc. degree. Under certain restrictions, failures and marks below 60% will be excluded if these same courses have been retaken in accordance with the rules of the College. See Cumulative Percentage Average calculation below.

Application for admission is to be made on a form available at the Office of the Dean after consultation with the department or departments concerned. The deadline for application is **May 31**. Students will be notified by letter during the summer.

Alternative Admission Standard: Students who, with more than 60 credit units, fail to qualify for admission to an Honours Program because their cumulative percentage average is less than 70% may nevertheless be admitted, with department recommendation and committee approval, if their average on the last 60 credit units or more taken is at least 75%, and their average in the subject of honours is at least 70%.

Additional Regulations: Students who wish to pursue an Honours Program after the completion of a Four-year degree should contact the Office of the Dean. Students

who meet the program and academic requirements for an Honours degree but have never been admitted to an Honours program may still be eligible to receive the Honours degree. These students should contact the Office of the Dean.

Honours Scholarships: A limited number of these scholarships are awarded annually to students in the fourth year of an Honours Program. To be eligible for consideration, a student must have been formally admitted by the College to an Honours Program, must have a sessional average of at least 75% and must have completed at least 78 credit units of the 120 credit units required in the Honours Programs. A student who has completed 78 credit units and who receives an Honours Scholarship must register in at least 18 credit units in the Regular Session in which the scholarship is tenable. Applications from students are not required for Honours Scholarships.

BACHELOR OF FINE ARTS AND BACHELOR OF MUSIC

Programs are available for the Bachelor of Fine Arts (in Studio Art or Drama) and the Bachelor of Music degrees. Please consult the Art and Art History, the Drama or the Music sections for details of these program requirements.

POST DEGREE SPECIALIZATION CERTIFICATE (PDSC)

This program is available to students who have completed another degree. At present, the PDSC is available in Computer Science and Economics. The requirements are basically the same as the major requirements for the Four-year program, but students do not have to complete the Distribution Requirements (Requirements 1-5). See the department listings for program requirements.

Students who complete the PDSC are not eligible to upgrade to a Four-Year Degree.

COURSES FROM OTHER UNIVERSITIES FOR ARTS AND SCIENCE CREDIT

Students may transfer from another university to the College of Arts and Science. Students from the College may also be given permission to take courses at another university for credit toward an Arts and Science degree. The following regulations apply:

RESIDENCY REGULATIONS

Students must complete from the University of Saskatchewan:

- at least one-half of the overall coursework required for their degree, including at least two-thirds of the senior credit units required (to the nearest multiple of 6 credit units), and
- at least two-thirds of the coursework required in the student's major subject (to the nearest multiple of 6 credit units).

- for all Four-year and Honours degrees, at least two-thirds of the credit units required at the 300-level and higher (to the nearest multiple of 3 credit units) must be completed from the University of Saskatchewan.

Students must meet all program requirements for the particular degree or certificate they are pursuing. This means that some students will have to complete more courses than the minimum number indicated below.

Students must meet the overall CPA and major CPA as described under "Promotion and Graduation Standards" in this section of the *Calendar*.

For specific degrees, the minimum requirements are as follows:

B.A. or B.Sc. Three-year

Of the credit units required for the degree, students must complete at least 45 credit units overall from the University of Saskatchewan, including a minimum of 30 senior credit units, and at least 18 credit units in the student's major subject.

B.A. or B.Sc. Four-year and B.A. or B.Sc. Honours

Of the credit units required for the degree, students must complete at least 60 credit units overall from the University of Saskatchewan, including:

- at least 42 senior credit units
- at least two-thirds of the 300- and 400-level courses required (to the nearest multiple of 3 credit units), and
- at least two-thirds of the courses required in the major (to the nearest multiple of 6 credit units). For the 36 credit-unit Four-year major, this means that at least 24 credit units in the major subject is required.

Minors and Recognition

In an 18 credit unit minor or recognition, at least 12 credit units must be completed at the University of Saskatchewan. In a 24 credit unit minor, at least 18 credit units must be completed at the University of Saskatchewan.

B.F.A.

Of the credit units required for the degree, students must complete at least 60 credit units overall from the University of Saskatchewan, including:

- a minimum of 42 senior credit units
- at least two-thirds of the 300- and 400-level courses required (to the nearest multiple of 3 credit units)
- in Art, at least 48 credit units of the combined total of Studio and Art History courses required, and in Drama, at least 48 credit units in Drama and cognate courses

B.Mus.

Of the credit units required for the degree, students must complete, from the University of Saskatchewan, at least 66 credit units overall, including two-thirds of the 300- and 400-level courses required (to the nearest multiple of 3 credit units), and at least two-thirds of the courses required

in Music (to the nearest multiple of 6 credit units).

PROCEDURES FOR OBTAINING TRANSFER CREDIT

Students transferring from another university to the College of Arts and Science must apply to Admissions, Office of the Registrar for admission.

The following procedures apply:

- (1) The student must arrange to have an official transcript of all courses taken previously forwarded to Admissions, Office of the Registrar for evaluation.
- (2) Admissions, Office of the Registrar will make a preliminary assessment of transfer courses for transfer credit. This evaluation may take four weeks or longer following receipt of transcripts by Admissions, Office of the Registrar. A copy of the transfer credit evaluation is sent to the student and to the Office of the Dean, which will assess the credit to be awarded toward an Arts and Science degree as outlined above.
- (3) On receipt of the transfer credit, students should consult the Office of the Dean to determine the number of credit units required from the University of Saskatchewan to complete their degree program. Students should be aware of the "Residency Regulations" outlined above.

CREDIT GIVEN FOR COURSES FROM OTHER UNIVERSITIES

Students who transfer to the College of Arts and Science from other universities or colleges, or students who wish to take courses elsewhere as visiting students may not obtain credit for all courses. Transfer credits as assessed by the Office of the Registrar may not apply within this College.

In particular, the following situations apply:

- (1) Courses from another college may be allowed as elective credits under certain circumstances. A form to request this credit is available from the Office of the Dean (Records Office), Room 236 ARTS.
- (2) Courses for which there is no College of Arts and Science equivalent (or near equivalent) may be disallowed.
- (3) A department has the right to require that majors from the department take the department's courses, regardless of whether the student already has credit for a duplicate course from another university. A student who chooses or is required to take a course that is determined to essentially duplicate a course for which transfer credit has been granted will either not be given credit for the new course or will lose the transfer credit. The decision rests with the Office of the Dean of Arts and Science in consultation with the department involved.
- (4) The Cumulative Percentage Average (CPA) overall and in the major required for promotion and graduation is calculated only on the courses taken at the University of Saskatchewan.
- (5) Students may not repeat for credit or to raise their average any transfer courses in which they have already received a passing grade (50 per cent or better).

(6) Students receiving transfer credit for "unspecified" courses may normally use these credit units to satisfy Requirement 7 only. Usually, these "unspecified" transfer credits are considered as junior-level courses.

TAKING COURSES AT OTHER UNIVERSITIES

VISITING STUDENT STATUS

A student wishing to take one or more courses from another university and receive credit toward a degree from the College of Arts and Science must apply for Visiting Student status.

Students should contact the Office of the Dean of the College of Arts and Science and list the courses, including course descriptions, in which they intend to register. Permission to register will be granted under the following conditions:

(1) The student must have completed at least 6 credit units of Arts and Science courses at the University of Saskatchewan.

(2) The student must have a CPA of at least 60%.

(3) Permission must be received from the Office of the Dean prior to registering for such courses.

(4) Credit for such courses will be subject to the restrictions listed under "Credit for Courses from Other Universities".

(5) Students must inform the College by letter if they do not complete the courses.

Transfer students may also apply for Visiting Student status to take a course at another university, but should be aware that they must meet the "Residency Regulations" listed previously to qualify for their degree.

EXCHANGE AND STUDY ABROAD PROGRAMS

Exchange and study abroad programs with universities in areas such as Australia, the United States, Mexico, Latin America, Japan and Europe have been developed for Arts and Science students. These programs allow students to study elsewhere for all or part of an academic session and obtain University of Saskatchewan credit for the approved courses taken.

LA ANTIGUA, GUATEMALA STUDY TERM ABROAD

The College of Arts and Science offers a term abroad in La Antigua, Guatemala every second year in Term 2. This program may be of interest to students in many disciplines within the College.

Students may take up to 18 credit units in the term. Courses offered in Guatemala include Spanish, and four courses from anthropology, archaeology, economics, geography, history, political studies and/or sociology. All courses except Spanish will be taught in English.

The deadline for applications for the term abroad is the last week of January in the year preceding travel to Guatemala. For

further information contact the Office of the Dean.

Other Study Abroad Programs

From year to year, there may be several courses offered abroad by Arts and Science. For example, the Mediterranean archaeology courses CLASS 246 and 247 and ARCH 362 are usually offered in Israel or Jordan over the summer. Recently, courses in Geography and History have been taught abroad. Consult the Office of the Dean for additional information on any of these programs.

WORK EXPERIENCE PROGRAMS

The College of Arts & Science offers students in a number of programs the opportunity to gain valuable work experience as part of their undergraduate degree. Work opportunities include credit courses, practicums and internships.

The following opportunities are currently open to students in the College:

- Computer Science Professional Internship Option;
- Cooperative Education Program for students in Geography, Land Use and Environmental Studies, and Regional and Urban Development. For more information contact the Program Coordinator at 306-966-8845;
- Career Internship Program for students in Economics, Geography, Land Use and Environmental Studies, Political Studies and Regional and Urban Development. This program is currently being extended to other Arts & Science programs. For more information contact the Program Coordinator at 306-966-8845;
- Practicum courses in the Aboriginal Justice and Criminology Program, Regional and Urban Development, and Women's and Gender Studies.

For more information, see the appropriate discipline under "Programs".

PRE-PROFESSIONAL STUDIES

Students who wish to enter any of the programs of study listed below should apply for admission to the College of Arts and Science.

Registration in the courses listed below does not imply that the student has been accepted in the other program.

Since programs often have more qualified applicants than can be accepted, students may find they need additional years of study, and perhaps a B.A. or B.Sc. degree, before they will be accepted. Students should select courses to fulfill the requirements for a B.A. or B.Sc. degree in the College of Arts and Science. Students should contact the other college directly for more information.

Following is a listing of pre-professional studies which are available at the University of Saskatchewan or by arrangement at other Canadian universities.

DENTISTRY

Students should consult the General Information section of the *Calendar* for admission requirements to Dentistry. The program is described in detail in the College of Dentistry section of the *Calendar*.

EDUCATION

Students should consult the General Information section of the *Calendar* for admission requirements to Education. The program is described in detail in the College of Education section of the *Calendar*.

In addition, the College of Education offers information sessions on requirements for entry into the College. Students should contact the College of Education for a schedule of sessions.

JOURNALISM

The University of Regina

The University of Regina offers a four-year program leading to a Bachelor of Arts degree in Journalism. The first two years of the program can be completed at the University of Saskatchewan. Students are required to complete the distribution requirements of the University of Regina curriculum and should select courses in first and second year from the following categories:

(1) ENG 110.6, or any two of ENG. 111.3, 112.3, 113.3, 114.3.

(2) At least 3 credit units in a Natural Science course chosen from: BIOL 110.6; CHEM 112.3; GEOG 111.3, 112.3; GEOL 121.3, 122.3; PHYS 111.6, 121.6 or 128.3.

(3) At least 6 credit units in a language other than English. The 6 credit units must be in the same language.

Certain summer language courses either offered or accepted by the Saskatchewan Centre for International Languages in Regina, which may be taken between year one and year two of this program, are also accepted by The University of Regina.

(4) Three of the following four categories:

a) - At least 3 credit units in a history course emphasizing Canadian history. HIST 152.3 is recommended, but HIST 151.3 is also acceptable.

b) - At least 3 credit units in a political studies course emphasizing Canadian politics and government: POLST 110.6 or POLST 203.6 is acceptable.

c) - ECON 111.3.

d) - At least 3 credit units in a social science course dealing with the media in the social science context: SOC 244.3 or 246.3 is acceptable. *Note:* SOC 110 is prerequisite to SOC 244 and 246.

(5) At least 3 credit units from fine arts, or ENG 288.3.

(6) PHIL 140.3 or 241.3 or any mathematics course (including MATH 100.6, 101.3 or 110.3).

(7) At least 3 credit units in a humanities area (in addition to the humanities courses listed above). Please note the School of

Journalism does not consider History as a Humanities area.

(8) Additional courses to total 60 credit units over the two years. No more than 42 credit units can be junior-level.

A minimum average of 70% is required. As well, proficiency in English must be well above average. It is strongly recommended that applicants type at least 30 words per minute.

Application deadline is January 31, by which time applicants must have completed or be registered in the courses listed above. The School will not accept applications from students who would have to take courses in Spring and Summer Session to complete the course requirements.

Spaces in this program are limited and applicants who meet the requirements are not guaranteed admission. Applications will be assessed and selected candidates will be invited for examinations and interviews.

For further information, contact the School of Journalism, The University of Regina, Regina SK S4S 0A2, Telephone: (306)585-4420.

LAW

Students should consult the General Information section of the *Calendar* for admission requirements to Law. The program is described in detail in the College of Law section of the *Calendar*.

MEDICINE

Students should consult the General Information section of the *Calendar* for admission requirements to Medicine. The program is described in detail in the College of Medicine section of the *Calendar*.

NUTRITION

Students should consult the General Information section of the *Calendar* for admission requirements to the Nutrition program in the College of Pharmacy and Nutrition. The program is described in detail in the College of Pharmacy and Nutrition section of the *Calendar*.

OCCUPATIONAL THERAPY University of Alberta

Those who wish to enrol in the B.Sc. in the Occupational Therapy program in the Faculty of Rehabilitation Medicine at the University of Alberta, Edmonton AB, must complete a minimum of two years (60 credit units) of university-level course work before applying for admission to the Faculty. Preference will be given to those who have completed:

- a minimum of 3 credits English
- 6 credits Laboratory Science
- 6 credits Psychology
- 3 credits Sociology
- 3 credits Statistics
- 3 credits Communication*
- 3 credits Introductory Gross Human Anatomy
- 6 credits Physiology

*The Communication course can be met by taking Interpersonal or Health Care

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Communications courses, such as OCCTH 106, which is a University of Alberta course. OCCTH 106 is normally offered at the University of Saskatchewan campus during the regular session and during Term 1 of Spring and Summer Session. Students wishing to enrol in this course must be admitted by and register through the University of Alberta as an Open Studies student. OCCTH 106 will transfer to the College of Arts & Science as 3 credit units in senior-level Psychology.

Deadline for application to the B.Sc. in Occupational Therapy program at the University of Alberta is April 1. Ten places are available to qualified Saskatchewan applicants. For further information contact Michele Derald, Academic Co-ordinator of Clinical Education (Saskatchewan), c/o University of Saskatchewan, Box 320, St. Andrew's College, 1121 College Drive, Saskatoon SK S7N 0W3, Telephone: (306)966-7780 or email: derald@outlet.sk.ca

The University of Manitoba

Three places are available for Saskatchewan students in the three-year program which leads to the degree of Bachelor of Medical Rehabilitation (Occupational Therapy) at The University of Manitoba. Applicants must have completed one pre-professional year of at least 30 credit units, consisting of: BIOL 110.6, PSY 110.6, SOC 110.6 and 12 elective credit units.

For more information, contact the Admissions Office, The University of Manitoba, Winnipeg MB R3T 2N2, Telephone: (204)474-8814 or The School of Medical Rehabilitation, 770 Bannatyne Ave., Winnipeg MB R3E 0W3, Telephone: (204)789-3674.

Prospective students are advised that a major curriculum change for Occupational Therapy is proposed to begin in 2003. There will be no intake of students in 2002 to allow for the phase-in of the proposed new program. Please contact the chair of Admissions for the Division of Occupational Therapy for more information at (204)789-3674 or pwener@ms.umanitoba.ca. As well visit the School of Medical Rehabilitation web site and go to Curriculum 2003.

OPTOMETRY University of Waterloo

The University of Waterloo offers a four-year Doctor of Optometry program. Agreements have been established between Ontario and a number of provinces to share the costs of educating a limited number of students from outside Ontario. The agreement between Ontario and Saskatchewan covers up to three students. The School of Optometry's Admission Committee bases its decisions on the competitive level of the candidates. The Committee is not committed to or limited by the number of places allocated to a province.

Applicants require senior matriculation standing in Mathematics B30 and C30 (or, under the old mathematics curriculum, Algebra 30 and Geometry-Trigonometry 30), Biology 30, Chemistry 30, and Physics 30 and at least two or three pre-

professional years. The School expects students to study full-time (30 credit units per year).

The Pre-Optometry courses consist of:

General Biology (with lab) - two terms: BIOL 110.6; General Chemistry (with lab) - two terms: CHEM 111.3 and one of CHEM 231.3 or 242.3; Physics (with lab) - two terms: PHYS 111.6; Calculus - two terms: MATH 110.3 and one of 112.3 or 116.3; English - two terms: any English; Introductory Psychology - two terms: PSY 110.6; Physiology (Human or Mammalian) - two terms: H SC 208.6; Genetics - one term: Biol 211.3; Introductory Ethics - one term: PHIL 133.3; Organic Chemistry - one term: CHEM 251.3; Microbiology - one term: MICRO 214.3; Biochemistry - one term: BIOCH 200.3; Statistics - one term: STATS 244.3 or 245.3.

Recommended courses: Human Anatomy - one term: ANAT 210.3; Human Embryology - one term: BIOL 352.3; Human Histology - one term; Immunology - one term: MICRO 421.3; Virology - one term: MICRO 309.3; Sociology - one term: any Sociology. The number of recommended courses successfully completed will be considered by the Admissions Committee. Missing recommended prerequisites could affect the competitive level of the candidate's application.

A minimum average of 75% is required.

For more information, contact Admissions, School of Optometry, University of Waterloo, Waterloo ON N2L 3G1, Telephone: (519)888-4567 extension 2782.

PHARMACY

Students should consult the General Information section of the *Calendar* for admission requirements to the Pharmacy program in the College of Pharmacy and Nutrition. The program is described in detail in the College of Pharmacy and Nutrition section of the *Calendar*.

PHYSICAL THERAPY

Students should consult the General Information section of the *Calendar* for admission requirements to Physical Therapy. The program is described in detail in the School of Physical Therapy section of the *Calendar*.

SOCIAL WORK The University of Regina

The program of the Faculty of Social Work is as follows:

The University of Regina Faculty of Social Work offers programs in Saskatoon, Regina and Prince Albert, which lead to a Bachelor of Social Work.

The criteria for admission decisions will be based on a combination of (1) 65% Weighted Percentage Average (W.P.A.), (2) completion of 30 credit hours of university credit (including transfer credit); and (3) the total score achieved on the assessment of the written application form including a personal statement and a social issues question. Applicants may be required to attend a panel interview with three faculty representatives. The interview will result in a tabulated score. The criteria for determining

personal suitability will include acceptance of the Canadian Association of Social Workers Code of Ethics and the Saskatchewan Human Rights Code.

Applications for admission to Social Work must be received at the Faculty of Social Work office in Regina by January 15 for the Spring and Summer and Fall terms and September 15 for the Winter term.

60 credit units of the program including NATST 110.6 and one of ENG 110.6, 111.3, 112.3, 113.3, 114.3 can be completed at the University of Saskatchewan. Students holding a related Three-year degree, including NATST 110.6 and one of ENG 110.6, 111.3, 112.3, 113.3, 114.3 will be given 60 credit units towards their B.S.W. program. Students holding a related Four-year degree, including NATST 110.6 and one of ENG 110.6, 111.3, 112.3, 113.3, 114.3 will be given 75 credit units towards their B.S.W. program.

For more information please contact the Faculty of Social Work, St. Andrew's College, 1121 College Drive, Saskatoon SK S7N 0W3, Telephone: (306)664-7370 or (306)664-7373.

THEOLOGY

Students who are taking the B.A. or B.Sc. as a preparation for theological studies are advised to consult the principal of the theological college which they intend to enter about their choice of courses.

Students who are certified as candidates in theology in an affiliated college are permitted, on the recommendation of their principal, to credit up to 18 credit units of approved theological options as senior electives towards their B.A. or B.Sc. Credit will be granted for introductory courses in Biblical Literature and Church History only. For students who subsequently enrol in courses in Biblical Literature or Church History at the university, if they take for credit 6 credit units or more in Biblical Literature, the number of theological options which may be counted towards their degree will be reduced accordingly.

VETERINARY MEDICINE

Consult the General Information section of the *Calendar* for admission requirements to Veterinary Medicine. The program is described in detail in the College of Veterinary Medicine section of the *Calendar*. Veterinary Medicine admission requirements can also be met through the College of Agriculture.

OTHER PROFESSIONAL PROGRAMS

For information on degrees in the fields of architecture, chiropractic, library science or other degrees not listed here, contact the Office of the Registrar or the Office of the Dean. Students should also contact the institutions offering the program for admission and program information.

SECOND DEGREE PROGRAMS

Programs in Arts and Science and in other colleges of this University may be combined to enable the student to obtain more than one degree in less time than if the two programs were taken separately.

Students intending to complete degrees from Arts and Science and from another college should be aware that they must be admitted to the other college before they can receive the other college degree. It is possible to complete an Arts and Science degree while registered as a student in another college or as students in Unclassified Studies.

Students who wish to follow a Second Degree Program are advised to consult the Office of the Dean of the College of Arts and Science to ascertain the precise course requirements. The duration of the Second Degree Program and the course requirements are determined by the following regulations:

(1) *Residency requirement:* Students must meet the residency requirements of the college for the specific degree sought (see Courses from Other Universities for Arts and Science Credit). Students are advised to complete these courses at the University of Saskatchewan.

(2) *Additional credit requirements:* Students pursuing a B.A. or B.Sc. Three-year in addition to another degree must complete at least 30 credit units not used for the other degree. Similarly, for all four-year Arts and Science degree programs, at least 60 additional Arts and Science credit units, not used for any other degree or certificate, are required. These additional Arts and Science credits are required regardless of the number of Arts and Science courses included in the program leading to the first degree. These courses must be allowable for credit in the College of Arts & Science.

(3) *Program requirement:* Students must satisfy all program requirements and the graduation standards for the degree being attempted.

(4) In some cases, the above regulations may mean that students are required to take more than the minimum 90 credit units for a Three-year degree or more than 120 credit units for a Four-year or Honours degree. The credit units which are in excess of the 90 or 120 may be in the subject of the major.

(5) Students may not receive credit for more than 48 junior credit units in the Three-year degree and not more than 54 junior credit units in the Four-year or Honours degree.

(6) *Date of commencement of a program:* Once a student has received a degree, any subsequent degree or certificate program commences in the first academic session in which study begins for the subsequent degree or certificate alone. Students must complete the program requirements, and the graduation standards which were in place for the academic session in which they began their studies, for the additional degree or certificate. If the date of program commencement is more than 10 years ago, students should contact the Office of the Dean. Normally, such students will be required to meet the current degree requirements.

(7) The overall and major Cumulative Percentage Averages (CPA) for Arts and Science graduation are calculated on grades from all courses taken, including

any course from another college which credits toward the Arts and Science degree and any Arts and Science course taken while in another college. This means that the average will include any courses which transfer to the College of Arts and Science even if they are extra to the Second Degree program requirements. Under certain restrictions, failures and marks below 60% will be excluded from the average if these courses have been retaken in accordance with the rules of the College. See Cumulative Percentage Average below.

ARTS & SCIENCE

Regulations were approved in 1997 to allow Arts and Science students to complete both a Bachelor of Arts degree and a Bachelor of Science degree. Effective for Spring Convocation, 1999, the following regulations apply:

B.A. and B.Sc., or B.Sc. and B.A.

The following regulations apply to students who have a B.A. and wish to complete a B.Sc. or who have a B.Sc. and wish to complete a B.A.:

- (1) Students may not receive two Three-year degrees.
- (2) To receive a Four-year or Honours degree, students must complete a minimum of 60 additional credit units and fulfill all program requirements. The 60 additional credit units are required regardless of whether the first degree was a Three-year, Four-year or Honours degree. Students will complete at least 150 to 180 credit units.
- (3) To receive a Three-year degree, students must complete a minimum of 30 additional credit units and fulfill all program requirements. Only students who have completed a Four-year or Honours degree may subsequently complete a Three-year degree. Students will complete at least 150 credit units.

Upgrade of Arts & Science Three-year degree to Four-year or Honours degree

The following regulations apply to students who are upgrading their B.A. or B.Sc. to a higher degree in the same or different major but of the same degree type. For example, a student with a B.A. Three-year in Sociology may upgrade to a B.A. Four-year in History or a student with a B.Sc. Four-year in Biology may upgrade to a B.Sc. Honours in Biology.

- (1) Students who have a Three-year degree must complete a minimum of 30 additional credit units and fulfill all program requirements in order to upgrade to a Four-year or Honours degree. A minimum of 120 credit units is required for the Four-year or Honours degree.
- (2) Students with a Four-year degree may upgrade to an Honours degree provided that there are additional Honours requirements remaining and that they successfully complete these requirements.
- (3) Students who have already completed all program requirements for an Honours degree, but did not achieve the CPA graduation standard required for Honours, are not permitted to take or retake courses to upgrade to an Honours degree under this policy.

Degrees for students with a B.A. or B.Sc. from another university

Students with a B.A. or B.Sc. degree from another university may be allowed to receive a B.A. or B.Sc. degree from the University of Saskatchewan. Students who wish to pursue such an option, must consult the Office of the Dean, College of Arts & Science.

Advanced and Honours Certificates

A student who has already completed a B.A. Four-year or Honours degree can receive an Advanced or Honours Certificate in a different B.A. major or interdisciplinary program, on completion of at least 30 additional credit units, subject to completion of Four-year or Honours program requirements in that major or interdisciplinary program. A student who has already completed a B.Sc. Four-year or Honours degree can receive an Advanced or Honours Certificate in a different B.Sc. major or interdisciplinary program, on completion of at least 30 additional credit units, subject to completion of Four-year or Honours program requirements.

From another university: Students who hold a B.A. or B.Sc. Four-year or Honours degree from another university are eligible to receive the Advanced or Honours Certificate subject to the conditions listed above. Such students must complete a minimum of 30 credit units including at least 24 senior credit units and at least 18 credit units in the subject of the major.

Note: Under this policy, which was effective in September, 1998, students who have a B.A. Three-year or B.Sc. Three-year degree may not be awarded an Advanced or Honours Certificate. Students already in such programs should consult with the Office of the Dean to determine when they must complete the pre-1998 program requirements.

ARTS & SCIENCE AND B.F.A. (IN STUDIO ART OR DRAMA)

Students who have completed a Bachelor of Fine Arts degree and wish to complete a B.A. or B.Sc. Three-year degree, must complete a minimum of 30 credit units in addition to those used in fulfilling the requirements of the B.F.A. degree. Students who have completed another degree and wish to complete a B.F.A. degree must complete a minimum of 60 additional credit units. All program requirements for the B.F.A. must also be completed.

ARTS & SCIENCE AND AGRICULTURE, COMMERCE, ENGINEERING, KINESIOLOGY, NURSING, NUTRITION & DIETETICS, PHARMACY, PHYSICAL THERAPY, VETERINARY MEDICINE

Students who wish to pursue a second degree program in Arts and Science with a degree from another college (as listed above) must satisfy the program requirements for one of the program types A, B, C, or D in completing the required minimum 30 credit units for the Three-year degree or 60 credit units for the Four-year degree.

ARTS & SCIENCE AND DENTISTRY OR MEDICINE

The Second Degree Program in Arts and Science and Dentistry or Medicine, leading to the B.A. or B.Sc. Three-year and D.M.D or M.D. may usually be completed in six years. The Four-year or Honours degree may usually be completed in seven years. This is possible because a number of courses in health sciences which are required by the College of Dentistry or Medicine may be counted as senior courses in the College of Arts and Science provided these courses do not duplicate courses already taken in Arts and Science.

Please consult the Office of the Dean for a list of these courses.

ARTS & SCIENCE AND EDUCATION

The Second Degree Program for the B.A. or B.Sc. Three-year and B.Ed. requires a minimum of 156 credit units and completion of all program and degree requirements. Students who have been awarded a B. Ed. and wish to receive a B.A. or B.Sc. Three-year degree must complete at least 30 additional credit units in Arts and Science, in addition to any Arts and Science courses used in completing the Education degree, as well as completing all program and degree requirements. Students may also choose to complete a B.A. or B.Sc. Four-year or Honours degree. Such students should consult the Office of the Dean.

ARTS & SCIENCE AND LAW

The Second Degree Program in Arts and Science and Law, leading to the B.A. or B.Sc. Three-year and LL.B., may usually be completed in five years including Spring and Summer Session. This is possible because up to 18 credit units of the following courses in the law program may be counted as senior electives in the College of Arts and Science by students following the Second Degree Program:

- LAW 390.3 Critical Legal Studies
- LAW 392.3 Dworkin and His Critics
- LAW 393.3 Feminist Legal Theory
- LAW 394.3 Jurisprudence
- LAW 395.3 Jurisprudence and Tort Law
- LAW 425.3 Sentencing in the Criminal Justice System
- LAW 426.3 Criminology, Retributive Justice and the Criminal Justice System
- LAW 431.3 Advanced Constitutional Law
- LAW 432.3 Human Rights
- LAW 433.3 Sallows Seminar in Human Rights
- LAW 436.3 Indian and Aboriginal Law
- LAW 437.3; Advanced Studies in Aboriginal Law
- LAW 444.3 Environmental Law
- LAW 457.3 International Law
- LAW 460.3 International Trade Law
- LAW 462.3 Co-operative Law
- LAW 474.3 Children and the Law
- LAW 486.3 Law and Psychiatry

Law students may also be permitted to take 6 credit units of Arts and Science courses as electives in second or third year law. Students should consult the office of the Dean of Law to obtain permission to take such courses. In total 24 credit units taken as part of the LL.B. program may be counted towards the B.A. or B.Sc. Three-year degree, including 18 credit units which may be chosen from the list above.

Students who enter the College of Law with a B.A. or B.Sc. Three-year degree may count up to 18 credit units of the courses listed above (taken as a part of the LL.B. program) toward a four-year or honours degree.

Grades from all of the courses attempted from the above list will be used in the calculation of the Arts and Science average.

ARTS & SCIENCE AND MUSIC

Students may choose a Second Degree Program in Arts and Science and Music leading to the B.A. or B.Sc. Three-year and B.Mus. (in theory and composition, history and literature, or performance) subject to the following conditions:

- (1) The 90 credit units needed for the B.A. or B.Sc. Three-year degree shall include not more than 24 credit units in music as follows: MUSIC 113.2, 114.2, 117.1, 119.1, 140.3, 141.3, 213.2, 214.2, 217.1, 219.1; and an additional 6 credit units in consultation with the Department of Music. At least 66 credit units in non-music courses are required.
 - (2) The 120 credit units needed for the B.A. or B.Sc. Four-year or Honours degree shall include not more than 36 credit units in music as follows: MUSIC 113.2, 114.2, 117.1, 119.1, 140.3, 141.3, 213.2, 214.2, 217.1, 219.1; and an additional 18 credit units in music, 12 of which must be at the 300- or 400-level. At least 84 credit units in non-music courses are required.
 - (3) All Music courses taken will be used for the purposes of calculation of the CPA
 - (4) Students must major in a subject other than music in the B.A. or B.Sc.
- Note:* This Second Degree Program does not apply to the B.Ed./B.Mus.(Mus.Ed.).

ARTS & SCIENCE AND B.ED./B.MUS.(MUS.ED.)

Students who have completed the B.Ed./B.Mus.(Mus.Ed.) may ordinarily complete the work for the B.A. or B.Sc. Three-year upon successful completion of an additional 30 Arts and Science credit units. See "Arts & Science and Education" (above).

PROMOTION AND GRADUATION STANDARDS

REPEATING COURSES

Failures and marks below 60% in courses taken from the University of Saskatchewan will be deleted from the average if the course has been retaken from the University of Saskatchewan according to the following rules:

- (1) A failed course can be retaken. The highest mark in this course from the

ARTS & SCIENCE

University of Saskatchewan will be used in the average.

(2) A course in which the grade was 50 to 59% can be retaken *once* and only the highest mark will be used in the average. Please note that once a student has passed an upper-level course, no prerequisite course can be taken for a higher mark. For example, BIOL 110.6 could not be retaken if the student has already passed BIOL 211.3 (or its equivalent at another university).

(3) A course in which the grade was 50 to 59% may be retaken simultaneously with a course for which it is a prerequisite. For example, if a student passed CHEM 112.3 with a grade between 50 to 59%, the student would be allowed to retake the course in the same term as taking CHEM 115.3 or 250.3.

(4) The grades received for all attempts of the course will remain on the transcript.

(5) For admission, promotion and graduation purposes, other colleges may follow different rules for calculation of the average. For example, they may use only the first grade received or they may use all grades received in a course.

(6) Grades for courses transferred from other universities are not used for the calculation of averages to determine promotion and graduation eligibility. Transfer marks are used in the average for admission to an Honours program. A student cannot retake for credit or to raise the average, a course for which transfer credit has been received. A failed transfer course may be retaken at the University of Saskatchewan.

CUMULATIVE PERCENTAGE AVERAGE (CPA)

The Cumulative Percentage Average is calculated on all courses attempted at the University of Saskatchewan, subject to the policy on Repeating Courses as described above. To calculate the CPA:

(1) Multiply the grade in each course by the number of credit units in the course. The result is the "weighted grade" of the course.

(2) Add together the weighted grades of all the courses taken.

(3) Add together the number of credit units taken.

(4) Divide the total weighted grades by the total number of credit units. The result is the Cumulative Percentage Average.

PROMOTION

The minimum requirements for continuing as a full-time student in the College of Arts and Science are based on the CPA calculated from the weighted grades of all courses attempted, including failures.

This calculation is made annually in May and is based on all grades obtained to the end of April (end of the Regular Session). The average calculation for students with deferred examinations will be made upon receipt of all final grades.

Students who are not promoted will receive a letter from the College in June indicating

their faculty action (Probation or Required to Discontinue).

Students should ensure that they inform the University of any address changes, so that they will be informed about their faculty action in a timely manner.

Students who have been Required to Discontinue will not be sent registration materials for the College of Arts and Science. Any registration in Spring and Summer Session courses will be changed to the status of Students in Unclassified Studies. For further details on taking courses under Required to Discontinue status refer to Faculty Actions: Probation and Required to Discontinue.

PROMOTION STANDARDS

To be allowed to take more than 24 credit units in the following Regular Session, the minimum Promotion Standards must be met.

(1) The Promotion Standards are based on the total number of credit units used in the calculation of the CPA.

(2) For students with transfer credits the required promotion average is based upon the total credit units attempted, including transfer credits. The CPA is calculated only on University of Saskatchewan courses attempted; grades received from other institutions are not included in the CPA.

(3) Failures used in the calculation of the CPA will include courses with marks of WF (Withdraw-Fail), INF (Incomplete-Fail) and ABF (Absent-Fail). The mark used in the calculation of the CPA for these failures is 30%.

(4) Students should be aware that meeting these standards does not ensure graduation; rather, these are the minimum standards required to continue studies on a full-time basis.

Promotion Standards

Credit Units Attempted	Minimum CPA
18-30	56.0%
31-60	58.0%
61 or more	60.0%

Probation

Credit Units Attempted	CPA
18-30	50.00-55.99%
31-60	54.00-57.99%
61 or more	58.00-59.99%

Required to Discontinue

Credit Units Attempted	CPA
18-30	49.99% or less
31-60	53.99% or less
61 or more	57.99% or less.

ALTERNATIVE PROMOTION STANDARDS

Students who fail to meet the above promotion standards will also be evaluated using the alternative promotion standards which exclude grades obtained in the first year of study or the first and second years of study. The following standards apply:

Alternate Promotion Standard

Credit Units Attempted	Minimum CPA
30-78	62.00% on last 18-48 c.u.
78 or more	62.5% on last 48-60 c.u.

Probation

Credit Units Attempted	CPA
30-78	58.00-61.99% on last 18-48 c.u.
78 or more	60.00-62.49% on last 48-60 c.u.

Required to Discontinue

Credit Units Attempted	CPA
30-78	57.99% or less on last 18-48 c.u.
78 or more	59.99% or less on last 48-60 c.u.

Where the two evaluation procedures produce different results, the evaluation which best benefits the student will apply.

FACULTY ACTIONS: PROBATION AND REQUIRED TO DISCONTINUE

Students who fail to meet the minimum or alternative CPA will either be placed on probation or be required to discontinue from the College of Arts and Science for a period of one academic year (July 1 to April 30). Students are notified in early June.

Students who are *Required to Discontinue* from the College of Arts and Science are not permitted to return to the College for a period of one academic year. Such students may be permitted to take courses during that year as Students in Unclassified Studies or at another institution. However, students who take courses as Students in Unclassified Studies or at another institution during their Required to Discontinue year must have a CPA of 60% before they can reapply for admission to Arts and Science. Students who do not take courses during their first Required to Discontinue year will, on application, be accepted for readmission to the College of Arts and Science.

Students on Probation are not allowed to take more than 12 credit units per term.

The academic record of students on probation will be reviewed in May. Students who meet the promotion standards will have their probationary status removed.

APPEALS

Students who are required to discontinue their studies for a period of at least one year, or who have been placed on probation, have the right to appeal this decision. Appeals will only be accepted if extenuating circumstances can be shown to account for poor academic performance. Corroborating documentation, such as a letter from a doctor, is required. The appeal, addressed to the Coordinator of Student Records of the College, must be made *in writing within 15 days of the date of notification*.

STUDENTS REQUIRED TO DISCONTINUE MORE THAN ONCE

When a student has been required to discontinue studies in the College of Arts and Science or in any other college or university more than once, any subsequent application for readmission to the College must be accompanied by:

- Explanation of past performance; and potential to succeed;
- Documentation verifying any extenuating circumstances; and
- A letter of intent concerning the applicant's future academic plans.

The applicant is encouraged to contact an advisor in the Office of the Dean.

GRADUATION

GRADUATION CHECK

Students in their final year should request a "Graduation Check" to ensure all graduation requirements will be completed. Forms are available from the Office of the Dean. The graduation checks take at least 2 weeks to complete. Students should request a check as soon as they have finalized their course registration.

APPLICATION FOR GRADUATION

Students must apply to graduate to receive a degree or certificate. The Application to Graduate must be submitted by **August 31** for Fall Convocation or by **March 31** for Spring Convocation. A student who fails to graduate must reapply at the appropriate time. Applications to Graduate are available at the Office of the Registrar and at the College General Office.

COMPLETION OF PROGRAM REQUIREMENTS

To qualify for graduation, students must complete both the degree requirements for their program type (as described in the section on Arts and Science Degree Programs) and must complete the course requirements for their major or Interdisciplinary Program (as described in the Programs section). The student may also have completed the requirements for a minor or recognition or both. The required Cumulative Percentage Average, as described below, must be achieved.

See "Date of Commencement of a Program" at the beginning of the Arts and Science General Information section of the *Calendar*.

REQUIRED CUMULATIVE PERCENTAGE AVERAGE

The graduation standard must be achieved on an average of all University of Saskatchewan courses which credit toward an Arts and Science degree.

The graduation standards for degrees are:

	CPA	CPA in subject*
B.A. or B.Sc. Three-year	60.0%	62.5%
B.A. or B.Sc. Four-year	60.0%	62.5%
B.A. or B.Sc. Honours	70.0%	70.0%
B.F.A.	70.0%	70.0%
B.Mus.	60.0%	62.5%

*"Subject" means the major subject, the minor subject, the recognition subject, and the courses listed as a "major", if any, for an Interdisciplinary Program.

All University of Saskatchewan courses attempted which credit towards an Arts and Science degree are used in the calculation of the Overall CPA and the Subject CPA. Failures are included if the course has not been retaken as described under 'Repeating Courses'. Students may not use a grade from another university to replace a University of Saskatchewan grade.

Note: Many programs include cognate courses in the major. Grades in these courses may be included in the calculation of the Subject CPA as well as in the Overall

CPA. For further information, consult the Office of the Dean.

ALTERNATIVE GRADUATION STANDARDS

All students who do not meet the overall or the subject graduation standards are eligible to receive a degree if they meet the alternative graduation standards on courses taken from the University of Saskatchewan as follows:

Major subject - For the B.A. or B.Sc. Three-year degree an average of 62.5% is required on at least 24 credit units of senior courses. All senior courses attempted in the major subject must be included.

For the B.A. or B.Sc. Four-year degree an average of 65% is required on at least 30 credit units of senior courses. All senior courses attempted in the major subject must be included.

Overall CPA - For the B.A. or B.Sc. Three-year or the B.A. or B.Sc. Four-year degree an overall CPA of at least 62.5% is required on the last 60 credit units or more attempted (including complete Regular, and Spring and Summer Sessions).

The student must also meet the regular or alternative graduation standards in the major subject.

Minor and Recognition: There is no Alternative Graduation Standard for minors and recognition. The subject CPA as described above must be achieved if these designations are to be awarded.

RAISING THE CPA: 18 CREDIT-UNIT RULE

A student who has completed the course requirements of the B.A. or B.Sc. Three-year or B.A. or B.Sc. Four-year or Advanced Certificate but has not met the CPA requirements, may take up to 18 additional credit units in order to raise the CPA. A student may not take more than a total of 18 such additional credit units in completing all degrees and certificates in the College of Arts and Science. Of the 18 credit units not more than 6 may be junior. The courses taken to raise the CPA must be approved in advance by the Office of the Dean. Courses taken to raise the CPA may not be credited towards any other degree or certificate.

DEGREES WITH DISTINCTION

Students in the B.F.A., B.Mus., B.A. Three-year or Four-year, or B.Sc. Three-year or Four-year programs, who earn a minimum CPA of 75% are awarded their degrees with Distinction; those who earn a minimum CPA of 80% are awarded Great Distinction.

The standard for Distinction or Great Distinction must be achieved on University of Saskatchewan courses which credit toward the Arts and Science degree.

Students cannot achieve Distinction or Great Distinction on the Advanced Certificate or the Post Degree Specialization Certificate.

Students cannot achieve Distinction or Great Distinction on the alternative graduation standard.

DEGREES WITH HONOURS

Honours Standard: Students who have completed an Honours Program with a CPA of 70% and an average of 70% in the prescribed courses of the subject of honours will, on the recommendation of the department and approval of the committee, be awarded their degree with honours.

High Honours Standard: Students with a CPA average of 75% and an average of 80% in the prescribed courses in the subject of honours will, on the recommendation of the department and approval of the committee, be awarded their degree with high honours.

Alternative Honours Standard: Students with a CPA of 75% overall on the last 60 or more credit units completed, and an average of 70% in the prescribed courses of the subject of honours will, on the recommendation of the department and approval of the committee, be awarded their degree with honours.

Departmental recommendations based on a comprehensive examination, or other quantitative aspects of the student's performance over the entire four years, shall have a weight of no more than 6 credit units in the calculation of a student's CPA.

The standard for Honours, High Honours and Alternative Honours must be achieved on all University of Saskatchewan courses which credit toward the Arts and Science degree.

Students cannot achieve High Honours on the Alternative Honours Standard.

EXAMINATION REGULATIONS

For provisions governing examinations students are referred to the *University Council Regulations on Examinations* section in the *Calendar* or on the web at www.usask.ca/university_council/reports.shtml.

The *College Regulations on Examinations*, including routine inquiry and requests for re-reads, *Student Academic Dishonesty* and *Student Appeals* are available on the web at: www.usask.ca/university_council/reports.shtml.

FINAL EXAMINATIONS

Final examinations, which constitute between 30% and 80% of the final grade, are required in all courses except those in which a final examination exemption has been granted by the College.

ABSENCE FROM FINAL EXAMINATION

A student who misses the final exam will be assigned a final grade of ABS (Absent). If the College does not approve a deferred examination in the course, this grade will automatically be converted to ABF (Absent Fail) with a mark of 30%. The grade of ABF is assigned regardless of what standing the student had already achieved in the course or the percentage of the final mark which the final exam was to contribute.

Students should not make travel plans or schedule other activities during the period scheduled for examinations.

INCOMPLETE COURSES

A student who writes the final exam but has not submitted all required course work, essays, laboratory work, etc. will be assigned by the instructor a grade of INC (Incomplete). This will automatically be converted to INF (Incomplete-Fail) with a mark of 30% or the partial grade submitted by the instructor. Students should contact the instructor regarding completion of outstanding course work.

DEFERRED EXAMINATIONS

A student who is absent from a final examination for medical reasons (such as illness) or compassionate reasons (such as the illness of a child) may apply to the Office of the Dean for a deferred examination. This application must be made within three days of the missed examination and must be accompanied by documentation (letter from a doctor, etc.).

Students should not make travel plans or schedule other activities during the period scheduled for examinations. Deferred examinations are not granted for these reasons.

A student who becomes ill during a final examination should notify the invigilator immediately of the inability to complete the examination. The student should request a deferred examination. A student who has sat for a final examination and handed the paper in for grading will not be granted a deferred final examination.

See the Academic Schedule at the beginning of the *Calendar* for deferred examinations periods. A special deferred examination may also be approved for students who submit satisfactory evidence of inability to be present at the regular sitting. A student who is absent from the deferred examination will be assigned a grade of ABF (Absent Fail) and a grade of 30%.

SUPPLEMENTAL EXAMINATIONS

Only students in their graduating year in the College of Arts and Science may apply for a supplemental examination provided that:

- (1) A final grade of 40% - 49% has been obtained in the course. The course must have been taken during the current session.
- (2) The student has met the promotion or graduation standards of the College both overall and in the major.
- (3) Supplemental examinations shall be accorded the same weight as the regular exam in the computation of the student's final grade.

Approval for the writing of a supplemental examination will not be considered until:

- an application for graduation has been submitted,
- all final examinations for the degree or certificate have been written,
- all final grades have been submitted.

Students applying for Spring Convocation (May) will **not** be able to have their degree conferred until Fall Convocation (October). Upon successful completion of the supplemental examination students may

request a letter confirming their degree requirements.

Regardless of the passing grade achieved, a grade of 50% in the course will be used by the College in calculation of the CPA. With the inclusion of the 50% in the average, the student must meet graduation standards.

See the Academic Schedule at the beginning of the *Calendar* for the dates that supplemental examinations are written.

GRIEVANCES

Students who have a grievance about the presentation of a course should consult the instructor, who will usually be able to find a solution. If students have not been satisfied, they may carry their grievance to the head of the department and to the Associate Dean (Undergraduate Affairs), in that order. In the case of a serious academic grievance which the above procedure has failed to solve, students have recourse to the University Appeals Committee. Information about this committee may be obtained from the Office of the Dean of Arts and Science or the Arts and Science Students' Union.

STUDENT ASSOCIATIONS

ARTS AND SCIENCE STUDENTS' UNION

The Arts and Science Students' Union (ASSU) is an interdisciplinary organization which offers a wide range of academic and social services. The ASSU acts as the students' liaison and representative within the University. It also organizes sport and social activities, and coordinates the various departmental clubs in the College.

All Arts and Science students on campus are automatically members of the ASSU. This entitles students to use of the ASSU lounge and free telephone service. Further information about the ASSU can be found in its office, Room 248, Arts Building.

COURSE UNIONS

Many programs in the College of Arts and Science have Course Unions. Students in such programs are encouraged to join the Course Union for their discipline. Through social activities, speakers, and other events, Course Unions provide opportunities for students to meet other students and faculty within their chosen field. Involvement in a Course Union contributes to a well-rounded university education. Students should contact the department of their major for more information on membership.

PROGRAMS

Not all courses described are given in any one academic year. For a timetable of courses offered in 2002-2003 please consult the *Registration Guide* at www.usask.ca/registrar.

ST. THOMAS MORE COLLEGE

St. Thomas More College (STM) is a federated Catholic liberal arts college at the

University of Saskatchewan. STM cooperates with the College of Arts and Science in preparing students for all B.A. and B.Sc. degrees, as well as the B.F.A. and the B. Mus. degrees.

Students in the College of Arts and Science may enrol through STM. Enrolment in STM does not restrict your choice of programs or courses. Furthermore, all courses offered by STM are open to any eligible university student and are designated in the *Registration Guide* with the letter "M" prior to the section number. For more information on STM and its class offerings, see "Federated and Affiliated Colleges".

COURSES FROM OTHER COLLEGES

COURSES WHICH TRANSFER TO ARTS & SCIENCE

A number of courses from other colleges transfer automatically to programs in the College of Arts and Science.

1) Most courses taught by Arts and Science departments to students in other colleges will transfer automatically if they are equivalent to an Arts and Science course. For example, MATH 124 transfers automatically.

2) Under a policy approved in 1998, any course from another college which is listed for credit in an Arts and Science degree program transfers automatically. For example, NUTR 120 and COMM 201 transfer automatically. These courses cannot be used in Requirements 1 to 5.

A list of all courses which transfer from other colleges is available in the Office of the Dean. Please note that other colleges are not obliged to accept Arts and Science students in their courses.

SIX CREDIT UNITS FROM ANOTHER COLLEGE

In addition to courses from other Colleges which transfer automatically to a College of Arts and Science program, students in the College of Arts and Science are allowed to take for credit a maximum of an additional 6 credit units from certain other colleges subject to the following guidelines:

(1) Students may not use this option if they are completing both an Arts and Science degree and a degree from another college.

(2) Kinesiology activity courses are normally not acceptable for credit.

(3) These courses may be used only under Requirement 7 (elective requirement) of Programs A, B, C, and D.

(4) Students will lose credit for the course(s) if there is duplication with Arts and Science course(s).

(5) Application for credit of these courses must be made on a form available from the Office of the Dean.

(6) This policy does not apply to introductory statistics courses from any college, as listed below. These all count as Arts and Science courses.

COLLEGE SCHOLAR AND SPECIAL STUDIES COURSES

The College Scholar and Special Studies courses have been established to provide qualified students with freedom to plan a course that will fulfill their individual academic interests. Students in these courses pursue independent studies on topics or projects not encompassed by standard courses and receive academic credit for these studies.

The *College Scholar* course (COLSC 298.3, 299.6, 398.3, 399.6, 498.3, 499.6) is designed for students who wish to study a subject which cannot normally be attempted in one course or which includes the disciplines of more than one department.

The *Special Studies* course (SP ST 298.3, 299.6, 398.3, 399.6, 498.3, 499.6) permits a student to study a topic in the discipline area of one department. Special Studies projects credit either as electives or in a major.

The *Special Studies in Languages* course allows students to take a concentrated course in a language to obtain linguistic qualifications necessary for advanced study. Special Studies in Languages projects (which can be at the 200-level) are also available. Please consult the Dean's Office for more information.

Normal sessional deadlines apply to these courses, except in extraordinary circumstances.

Complete applications, including the project description, must be submitted by the supervising professor to the Office of the Dean.

SPECIAL TOPICS COURSES

These are courses numbered 298.3, 299.6, 398.3, 399.6, 498.3 and 499.6 taught occasionally by faculty and visiting scholars in departments. They are listed in each department program. Students may receive credit for more than one Special Topics course in a department.

REGULATIONS FOR INTRODUCTORY COURSES IN STATISTICS

Introductory courses in statistics which are eligible for Arts and Science credit are listed in the following categories:

a) PL SC 314.3, G E 210.3, STATS 242.3, STATS 245.3, STATS 246.3

b) COMM 104.3, ED PSY 441.3, PSY 233.3, STATS 244.3

c) COMM 207.3, PSY 234.3, SOC 240.3

d) ECON 204.6

From the above courses, students are allowed to take a maximum of 6 credit units subject to conditions (1) to (4) as follows:

(1) At most, one course may be taken for credit from each of the categories (a) to (d) inclusively.

(2) Students who take a course for credit from (a) are not allowed to take a course for credit from (b) or (c).

(3) To obtain credit for 6 credit units in introductory statistics, students may take ECON 204.6 (category (d)), or they may take one course from (b) and one course from (c). No course from (a), (b), or (c) may be combined with ECON 204.6 to obtain credit for more than 6 credit units.

(4) Although STATS 242.3, 245.3 or 246.3 may be used in Distribution requirements 1 to 5 in exceptional cases, no other course listed in (a) to (d) may be used in these distribution requirements. Students must contact the Office of the Dean for further information.

It should be noted that STATS 103.3 and STATS 241.3 are courses in probability and are not listed in categories (a) to (d) above. Credit for STATS 103.3 may be received in addition to 3 or 6 credit units in introductory statistics taken from categories (a) to (c) and subject to conditions (1) to (4) above, provided that STATS 103.3 is taken first. Students who complete STATS 103.3 and then complete ECON 204.6, will only receive 3 credit units for ECON 204.6.

Students who complete any one of the statistics courses in (a) through (d), and then complete STATS 103.3, will not receive credit for STATS 103.3. Students taking STATS 103.3 concurrently with courses (a) through (d) will not receive credit for STATS 103.3. There is one exception to this rule: students may complete STATS 244.3 before, after or concurrently with STATS 103.3 and receive credit for both courses.

Students may take STATS 241.3 for credit in addition to STATS 103.3 and/or in addition to 6 credit units in introductory statistics (subject to conditions (1) to (4)), provided that they have completed the prerequisites for STATS 241.3. Students may not take STATS 103.3 for credit if they have already completed STATS 241.3.

TRANSFER CREDIT FOR STATISTICS AND MATHEMATICS COURSES

Students with transfer credit for junior-level statistics and junior-level linear algebra courses from another university should contact the Office of the Dean regarding credit before registering in any mathematics, statistics or economics courses.

ANATOMY AND CELL BIOLOGY

The Department offers education in five subdisciplines of the anatomical sciences: cell biology, histology, developmental biology, gross anatomy, and neuroanatomy. The program includes prerequisite courses for professional schools and graduate studies in many areas of the life sciences. Graduates have career opportunities in biomedical and biotechnology research.

ALL ANATOMY & CELL BIOLOGY DEGREE PROGRAMS

The following courses are required: BIOL 110.6, 211.3; ANAT 200.3, 210.3, 325.3, 330.3, 331.3; BIOCH 200.3, 212.3; CHEM 112.3, 250.3; MICRO 214.3 or AP MC 212.3; H SC 208.6 or BIOL 217.3 and BIOL 218.3; PSY 233.3 or PL SC 314.3 or

equivalent, and the Program Type C Requirements. Additional courses are required for the three-year, four-year, or honours programs, as listed below. Students intending to major in Anatomy and Cell Biology should contact the department concerning courses to be taken as electives. Students should refer to the list of Anatomy and Cell Biology program electives below for selection of elective courses. Students are encouraged to attend departmental seminars.

MAJOR IN ANATOMY (B.SC. FOUR-YEAR)

Additional courses: ANAT 405.3 and 21 credit units from the list of Anatomy and Cell Biology program electives below.

MAJOR IN ANATOMY (B.SC. THREE-YEAR)

Additional courses: 6 credit units from the list of Anatomy and Cell Biology program electives below.

HONOURS IN ANATOMY

Additional courses: ANAT 402.6, 405.3, 490.0 and 21 credit units from the list of Anatomy and Cell Biology program electives below.

Anatomy and Cell Biology Program Electives: ANAT 334.3, 401.6 (for non-honours students only), 404.3; BIOCH 211.3, 230.3, 310.3, 311.3 (or MICRO 391.3), 430.3, 436.3; BIOL 316.3, 352.3, 416.3; MICRO 216.3, 309.3, 387.3, 416.3, 417.3, 421.3; PHYSIO 336.3, 337.3, 346.3, 348.3, 350.3

SUGGESTED SEQUENCE OF COURSES

First Year

Students must enrol in BIOL 110.6; CHEM 112.3; and PHYS 111.6. BIOCH 200.3 and CHEM 250.3 may be taken in either first or second year.

Second Year

Students entering second year should consult with a departmental advisor. Students must enrol in ANAT 200.3, 210.3; BIOCH 200.3 (if not taken in first year), BIOCH 212.3; BIOL 211.3; CHEM 250.3 (if not taken in first year), and PSY 233.3 or PL SC 314.3.

Third Year

Students entering third year should consult with a departmental advisor. Students must enrol in ANAT 325.3, 330.3, 331.3; MICRO 214.3; H SC 208.6 or BIOL 217.3 and 218.3. In addition, students must take 6 credit units from the list of Anatomy and Cell Biology program electives. Students in the Three-year program must complete any outstanding Program Type C requirements.

Fourth Year

Students entering fourth year should consult with a departmental advisor. Students must enrol in ANAT 405.3, and should take 15 credit units from the list of Anatomy and Cell Biology program electives and complete any outstanding Program Type C requirements. Honours students are also required to enrol in ANAT 402.6 and 490.0.

FOUR-YEAR AND HONOURS IN CELL BIOLOGY AND BIOTECHNOLOGY

Program Requirements:

- (1) BIOL 110.6, CHEM 112.3, 250.3, 6 credit units in approved Natural Sciences (PHYS 111.6 is recommended for these 6 credit units).
- (2) 27 credit units in core Biotechnology courses: ANAT 200.3, BIOCH 200.3, 212.3, BIOCH 311.3 or MICRO 391.3, BIOL 211.3, MICRO 214.3 or AP MC 212.3, MICRO 216.3, H SC 208.6 or BIOL 217.3 and 218.3
- (3) 6 credit units chosen from AN SC 313.3, 470.3, BIOCH 230.3, 436.3, BIOL 316.3, MICRO 417.3, 425.3
- (4) 21 credit units chosen from ANAT 210.3, 325.3, 330.3, 331.3, 334.3, 404.3, 405.3; MICRO 387.3

(5) Project course

- a) Honours - ANAT 402.6
- b) Four-Year - ANAT 401.6

(6) PHIL 236.3 plus 27 credit units such that (a) and (b) are satisfied as follows:

- a) 9 credit units are taken from SOC 292.3, 323.3, AG EC 292.3, COMM 345.3, COMM 346.3, POLST 362.3

b) 18 additional credit units are taken such that Type C distribution requirements 2-5 are satisfied with the recommendation that 6 of these credit units are chosen from the courses listed in (a) and/or from HIST 284.3, AGRIC 222.3. [Note that COMM 345.3, 346.3, AGRIC 222.3 cannot be used in Type C distribution requirements.]

(7) 12 credit units in Science electives. It is recommended that students take any outstanding requirements for completion of the Honours program in Cell Biology.

Students who do not meet the standard for an Honours degree in the Biotechnology program are eligible to be considered for the B.Sc. Four-year degree in Cell Biology and Biotechnology.

ANTHROPOLOGY AND ARCHAEOLOGY

The Department of Anthropology and Archaeology offers the following degree options:

- B.A. Three-year, Four-year and Honours degrees with a major in Anthropology and Archaeology
- B.A. Three-year, Four-year and Honours degrees with a major in Archaeology
- B.Sc. Four-year and Honours degrees with a major in Archaeology

PROGRAMS IN ANTHROPOLOGY AND ARCHAEOLOGY

Anthropology is generally divided into four subdisciplines: archaeology, ethnology, linguistics and biological anthropology. However, these may be grouped into two major themes: (1) sociocultural anthropology (ethnology and linguistics) and (2) archaeology (archaeology and biological anthropology). ANTH 111.3

introduces the student to ethnology and social anthropology, while ARCH 112.3 introduces the student to archaeology and biological anthropology. ARCH 116.3 is an introduction to Near Eastern and Classical Archaeology. Students may take all three courses (ANTH 111, ARCH 112 and ARCH 116) but are responsible for completing the required number of senior courses for their program.

The following is a list of courses according to their subdisciplinary designation:

Archaeology: ARCH 243.3, 244.3, 250.3, 251.3, 255.3, 257.3, 258.3, 350.3, 351.3, 352.3, 353.3, 355.3, 356.3, 358.3, 360.3, 361.6, 362.6, 452.3, 453.3, 455.3, 457.3, 458.6, 459.3, 461.3, 462.3, 465.3.

Ethnology: ANTH 220.3, 221.6, 222.3, 223.3, 224.3, 226.3, 229.3, 230.3, 231.3, 232.3, 235.3, 311.3, 321.3, 326.3, 328.3, 329.3, 337.3, 339.3, 421.3, 422.3, 425.3, 430.3.

Linguistics: LING 240.3, 241.3, 242.3, 243.3, 246.3, 342.3.*

Biological Anthropology: ARCH 270.3, 375.3, 470.3 471.3, 472.3.

General and Multi-subdisciplinary: ANTH 111.3; ARCH 112.3, 116.3; ANTH/ARCH 300.3, 301.3.

* Linguistics courses are offered by the Department of Languages and Linguistics and may be taken for credit in Anthropology and Archaeology. These include: LING 111.3, 112.3, 240.3, 241.3, 242.3, 243.3, 246.3 and 342.3.

MAJOR IN ANTHROPOLOGY AND ARCHAEOLOGY (B.A. FOUR-YEAR)

ANTH 111.3 and ARCH 112.3, and 30 credit units consisting of a minimum of 6 credit units from 200-level courses chosen from two subdisciplines and a minimum of 3 credit units from 300-level courses. Students who plan to major in Anthropology and Archaeology should consult the Head of the Department or the Undergraduate Advisor concerning their choice of courses.

MAJOR IN ANTHROPOLOGY AND ARCHAEOLOGY (B.A. THREE-YEAR)

ANTH 111.3 and ARCH 112.3, and 24 credit units consisting of a minimum of 6 credit units from 200-level courses and a minimum of 3 credit units from 300-level courses. Students who plan to major in Anthropology and Archaeology should consult the Head of the Department or the Undergraduate Advisor concerning their choice of courses.

HONOURS IN ANTHROPOLOGY AND ARCHAEOLOGY

Students interested in taking an Honours Program in Anthropology and Archaeology must choose at least 48 credit units in anthropology and archaeology as follows:

- (1) ANTH 111.3 and ARCH 112.3;
- (2) 18 credit units from ANTH 220.3, 221.6, 222.3, 223.3, 224.3, 226.3, 229.3, 230.3, 231.3, 232.3, 235.3, ARCH 250.3, 251.3, 255.3, 257.3, 258.3, 270.3, 361.6. Students are encouraged to take at least 3 credit units in each subdiscipline, but are only required to take 3 credit units in three of the four subdisciplines;*

(3) One of ANTH 421.3, 422.3, 430.3, or one of ARCH 461.3, 462.3;

(4) 21 additional upper-year credit units in anthropology and archaeology.

DOUBLE HONOURS

Anthropology and Archaeology may be combined in a Double Honours program with other disciplines. The requirements are 36 credit units in Anthropology and Archaeology including: 6 credit units at the 100 level, 12 credit units at the 200 level with at least 3 credit units in two of the four subdisciplines, one of ANTH 421.3, 422.3, 430.3, ARCH 461.3 or 462.3 and 15 additional senior credit units in anthropology and archaeology.

Note: The prerequisites for ANTH 421.3, 422.3, and 430.3 are a 6 credit unit 200-level course in ethnology and at least one course from ANTH 321.3, 326.3, 328.3, 329.3, 337.3, 339.3. Also note that the prerequisites for ARCH 461.3 and 462.3 are ARCH 251.3 and one other senior level 3 credit unit course in the subdiscipline archaeology.

The Department requires that all Honours students consult with the Head of the Department or the Departmental Undergraduate Advisor in establishing the students' fields of specialization within anthropology and archaeology, because this consideration is important in choosing suitable upper-level courses within the department and suitable cognate courses offered by other departments.

PROGRAMS IN ARCHAEOLOGY

Archaeology is the study of the artifacts and other material remains of past human societies. Through this study the characteristics of past human technologies are revealed, as well as the time periods at which they existed. The archaeology program will focus on past cultures in two parts of the world: (1) the North American Plains, and (2) the Near East and adjacent Mediterranean regions. The application of natural science methodologies in the analysis of archaeological materials is an important part of archaeological research. For this reason, the Department offers both B.A. and B.Sc. programs. Students who plan to major in archaeology should consult the Head of the Department or the Undergraduate Advisor concerning their choice of courses.

Students who prefer a social science orientation should take one of the B.A. degree programs.

Students who prefer a natural science orientation should take one of the B.Sc. programs.

Students will not be permitted to complete both a B.A. and a B.Sc. in Archaeology.

MAJOR IN ARCHAEOLOGY (B.A. FOUR YEAR)

Students are required to complete:

- 1) 6 credit units from ANTH 111.3, ARCH 112.3, ARCH 116.3
- 2) a minimum of 6 credit units from 200-level archaeology courses including 3 credit units chosen from the Old World and 3 credit units from the New World

3) a minimum of 9 credit units from 300-level courses: ARCH 350.3, 351.3, 352.3, 353.3, 355.3, 356.3, 358.3, 360.3, 361.6, 362.6, ANTH 329.3, 339.3, LING 342.3, CLASS 356.3, 357.3.

4) 15 additional credit units in archaeology at the 200-level and higher.

MAJOR IN ARCHAEOLOGY (B.A. THREE YEAR)

Students are required to complete:

- (1) 6 credit units from ANTH 111.3, ARCH 112.3, ARCH 116.3
- (2) 24 credit units including i) a minimum of 6 credit units from 200-level archaeology courses, and ii) a minimum of 3 credit units from 300 level archaeology courses

MAJOR IN ARCHAEOLOGY (B.A. HONOURS)

The honours degree prepares the student for graduate studies in archaeology. Honours students must consult with the Head of the Department, or the Departmental Undergraduate Advisor to establish the student's field of specialization.

Students are required to complete:

- (1) 6 credit units from ANTH 111.3, ARCH 112.3, ARCH 116.3
- (2) 18 credit units from ARCH 243.3, 244.3, 250.3, 251.3, 255.3, 257.3, 258.3, 270.3, 361.6, ANTH 222.3, 224.3, 229.3, 329.3, 339.3, LING 246.3, 342.3, CLASS 240.3, 242.3, 247.3, 248.3

(3) One of ARCH 461.3 or 462.3

(4) 21 additional credit units in archaeology at the 200-level and higher

MAJOR IN ARCHAEOLOGY (B.Sc. FOUR YEAR)

Students must complete the following:

- (1) ANTH 111.3 and ARCH 112.3
- (2) BIOL 110.6, 203.6, 205.3
- (3) CHEM 112.3 and 6 credit units from the following: 115.3, 221.3, 250.3, 252.3 or 255.3
- (4) GEOL 121.3, 122.3, 243.3, 246.3
- (5) 30 credit units from ARCH 250.3, 251.3, 270.3, 361.6, 375.3, 455.3, 457.3, 458.6, 459.3, 461.3, 462.3, 470.3, 471.3, 472.3

(6) 48 credit units in additional courses to complete the College of Arts and Science requirements.

As electives, students are encouraged to choose from the list of recommended courses depending on the area of focus.

Recommended courses include:

- BIOL 204.3, 211.3, 253.3, 263.3, 323.3, 324.3, 325.3, 326.3, 351.6, 367.3, 368.3, 401.3, 422.3, 424.3, 451.3, 455.3, 458.3
- CHEM 231.3, 242.3
- GEOL 311.3, 312.3, 332.3, 343.3, 433.3, 435.3, 437.3, 439.3, 446.3
- GEOG 235.3, 320.3, 321.3, 325.3, 335.3, 336.3, 435.3
- PL SC 213.3, 322.3

SL SC 220.3, 313.3, 332.3, 460.3

STATS 103.3, 245.3

Non-scientific elective archaeology courses can be used as courses contributing to the major but not as part of the 30 credit units required in category (5).

Of the 120 credit units required for the degree not more than 60 credit units are allowed in any one subject and not more than 54 may be at the 100-level.

MAJOR IN ARCHAEOLOGY (B.SC. HONOURS)

The honours degree prepares the student for graduate studies in archaeology. Honours students must consult with the Head of the Department, or the Departmental Undergraduate Advisor to establish the student's field of specialization.

Students must complete the following:

- (1) ANTH 111.3 and ARCH 112.3
- (2) BIOL 110.6, 203.6, 205.3
- (3) CHEM 112.3 and 6 credit units from the following: 115.3, 221.3, 250.3, 252.3 or 255.3
- (4) GEOL 121.3, 122.3, 243.3, 246.3
- (5) 33 credit units from ARCH 250.3, 251.3, 270.3, 360.3, 361.6, 375.3, 455.3, 457.3, 458.6, 459.3, 470.3, 471.3, 472.3
- (6) One of ARCH 461.3 or 462.3
- (7) 42 credit units in additional courses to complete the College of Arts and Science requirements.

As electives, students are encouraged to choose from the list of recommended courses depending on the area of focus.

Recommended courses include:

- BIOL 204.3, 211.3, 253.3, 263.3, 323.3, 324.3, 325.3, 326.3, 351.6, 367.3, 368.3, 401.3, 422.3, 424.3, 451.3, 455.3, 458.3;
- CHEM 231.3, 242.3
- GEOL 311.3, 312.3, 332.3, 343.3, 433.3, 435.3, 437.3, 439.3, 446.3
- GEOG 235.3, 320.3, 321.3, 325.3, 335.3, 336.3, 435.3
- PL SC 213.3, 322.3
- SL SC 220.3, 313.3, 332.3, 460.3
- STATS 103.3, 245.3

Non-scientific elective archaeology courses can be used as courses contributing to the major but not as part of the 30 credit units required in category (5).

Of the 120 credit units required for the degree not more than 60 credit units are allowed in any one subject and not more than 54 may be at the 100-level.

CLASSICAL AND NEAR EASTERN ARCHAEOLOGY

The Department of Anthropology and Archaeology and St. Thomas More College have developed an interdisciplinary program in Classical and Near Eastern Archaeology. For further information refer to the Classics section of the Calendar and contact the chairperson of the administrative committee.

PALAEOBIOLOGY

The Departments of Anthropology and Archaeology, Biology and Geological Sciences have developed an interdisciplinary program in Palaeobiology. For further information refer to the Palaeobiology section of the Calendar and contact the chairperson of the administrative committee.

These courses are offered occasionally by visiting faculty and in other special situations. Students interested in these courses should contact the department for more information.

COURSES IN OTHER DEPARTMENTS

The following courses may be credited toward an anthropology and archaeology major and honours program. For details see the Courses section of the Calendar.

- CLASS 247.3 Introduction to Greek Archaeology
- CLASS 248.3 Introduction to Roman Archaeology
- CLASS 356.3 The Archaeology of the Aegean Bronze Age
- CLASS 357.3 The Archaeology of the Early Greek Polis

ARCHITECTURE

See Regional and Urban Development Program in this section of the *Calendar*.

ART AND ART HISTORY

There are at present three general fields or areas of concentration in the department:

- AREA I - Studio Art:* concerned with the practice of art in various media in six studio areas.
- AREA II - History of Art:* concerned with the history, theory and criticism of art.
- AREA III - Art Education:* concerned with the teaching of art. (For details, see the College of Education section of the *Calendar*.)

B.A. PROGRAMS - STUDIO ART

Major in Art: Area I - Studio Art (B.A. Four-year)

Students majoring in Area I (Studio) are required to take a minimum of 36 credit units.*

- (1) ARTH 120.3, 121.3 and 6 senior credit units in the history of art.
- (2) 24 credit units in at least three studio areas, including 6 credit units in foundation drawing and two other studio areas.

The following are recommended for students wishing additional courses in art:

- (1) Any senior course in the history of art.
- (2) Additional courses from one of the studio areas.

Major in Art: Area I - Studio Art (B.A. Three-year)

Students majoring in Area I (Studio) are required to take a minimum of 30 credit units.*

- (1) ARTH 120.3, 121.3 and 6 senior credit units in the history of art.

(2) 18 credit units in at least three studio areas, including 6 credit units in foundation drawing and two other studio areas.

*Art History and Studio Art are considered separate subject areas. Consequently, students may take a maximum of 42 credit units for the B.A. Three-Year and 60 credit units for the B.A. Four-Year in each of these subject areas.

DOUBLE HONOURS IN STUDIO ART AND ART HISTORY

Thirty-six credit units in Studio Art in at least four studio areas including 6 credit units in foundation drawing and three other studio areas, and ARTH 120.3, 121.3 and 30 senior credit units or the equivalent in Art History. At least 48 credit units in non-Art courses are required.

DOUBLE HONOURS IN STUDIO ART AND ANOTHER SUBJECT

ARTH 120.3, 121.3, 24 credit units in Studio Art including 6 credit units in foundation drawing and three other studio areas, and 6 credit units or the equivalent in either Studio Art or Art History and 36 or 42 credit units or the equivalent in a non-art subject at the discretion of the department concerned.

B.F.A. DEGREE

This program is intended for students who wish to acquire a thorough knowledge of studio art as part of their general education and for those who wish to prepare for work leading to graduate degrees in art.

1. Admission

Students should have completed 60 credit units with at least 24 credit units in studio art. Formal admission to the B.F.A. Program requires application for admission made on a form available at the Office of the Dean. In order to qualify for admission students must have obtained a cumulative percentage average* of at least 70% and a minimum subject average of 70% on all art courses taken.

* The Cumulative Percentage Average is calculated from the grades obtained on all courses taken, including failures.

2. Pre-B.F.A. Program

The recommended pre-B.F.A. program consists of:

First Year

18 credit units in art (ARTH 120.3, 121.3 and 12 credit units in studio art including ART 112.6 and at least one other foundation level studio course).

12 credit units selected from Requirements 1 to 5 of Program Type D: Fine Arts.

Second Year

12 or 18* credit units in art including two other foundation level studio courses.

12 credit units selected from Requirements 1 to 5 of Program Type D: Fine Arts.

* Only students with a cumulative percentage average of 70% or better will be permitted to take more than 12 credit units in art in the second year.

3. B.F.A. Program

During the final two years of the four-year program, the student may concentrate in two or more studio areas. Significant development may be difficult if a student works in more than four areas. The

concentration of the following sample program is in two studio areas, drawing and printmaking, with electives used to gain some experience in three other areas.

Third Year

12 credit units in studio art; 6 credit units in history of art; A required academic course (6 credit units); Elective (6 credit units)

Fourth Year

12 credit units in studio art; 6 credit units in history of art; Electives (12 credit units)

4. Academic Requirements

This degree is offered in Studio Art. The degree requires four years (120 credit units) in the College of Arts and Science, including two years in the pre-B.F.A. program and two years in the B.F.A. program.

The B.F.A. candidate must complete the following:

- (1) a minimum of 48 credit units in four or more studio areas, including 6 credit units in foundation level drawing and three other foundation level studio courses;
- (2) 24 credit units in history of art courses including ARTH 120.3, 121.3;
- (3) 18 senior elective credits, which may be chosen from any department. The B.F.A. student is encouraged to use these electives for further studio work;
- (4) 30 credit units in academic courses chosen from the 10 divisions listed below, with not more than 6 credit units to be taken from each division:
 - a) - ENG 110.6 or any two of ENG 111.3, 112.3, 113.3, 114.3; or LIT 100.6;
 - b) - A second language;
 - c) - 6 credit units from HIST 110.3, 111.3, 114.6, 120.6, 121.3, 122.3, 140.6, 148.6, 170.6;
 - d) - ANTH 111.3 and ARCH 112.3 or 116.3, or ANTH 220.3 or ARCH 250.3 and 251.3 (ANTH 220.3, ARCH 250.3 and 251.3 are subject to the approval of the Head of the Department of Anthropology and Archaeology);
 - e) - One of LING 111.3 and 112.3, NATST 110.6, SOC 110.6, 6 credit units 100-level POLST, ECON 111.3 and 114.3, GEOG 113.3 and 114.3;
 - f) - PSY 110.6;
 - g) - One of PHIL 110.6, or any two of PHIL 120.3 133.3 and 140.3;
 - h) - BIOL 107.6 or 6 credit units in 100-level computer science courses or any 100-level natural science course;
 - i) - MATH 101.3, or 110.3 and 112.3 or 116.3;
 - j) - A course in music or drama or any course from classics or FINAR 100.6 or religious studies or WGST 110.6; or the following dance courses may be credited to the B.F.A. in Studio Art under this requirement: KIN 212.3 and 213.3, or *KINAC 210.2, 212.2 and 412.2, or a combination of KIN and KINAC courses (to a limit of 7 credit units).

(5) A B.F.A. candidate must maintain a cumulative percentage average of 70% or better on all courses.

* Kinesiology Activity Classes (KINAC) are not acceptable as electives in the B.A., B.Sc. or B.Mus. degree programs.

5. Final Examination

Upon the completion of the fourth year, the candidate for a B.F.A. degree in Studio Art will be required to mount an exhibition of work done during the program of his/her study in this department. The exhibition must be of quantity and quality acceptable to a faculty review committee. The B.F.A. Final Exhibition will have a value of 12 credit units for average calculations. If the grade given for the exhibition results in a cumulative percentage average of less than 70%, thus preventing graduation, the student will have one opportunity to mount a second exhibition. This must be done within twelve months of the first exhibition. If the results then constitute a cumulative percentage average of at least 70% or better the student will graduate. If not, the student may want to fulfill the requirements of a B.A. Four-year degree in Art.

The department retains the right to select one work from distinguished B.F.A. exhibitions for the permanent collection of student work.

6. Degrees with Distinction

Students in the B.F.A. program who have earned a CPA of 75% on 120 credit units and have been recommended for Distinction by the examining board for their final exhibition are awarded their degree with Distinction; those who have earned a CPA of 80% on 120 credit units and have been recommended for Great Distinction by the examining board are awarded their degree with Great Distinction.

7. Distinguished Exhibition Award

The Distinguished Exhibition Award will be given to students whose final exhibition is deemed exceptional by the Department of Art and Art History.

B.A. PROGRAMS - HISTORY OF ART

Major in Art: Area II - History of Art (B.A. Four-year)

Students are required to take a minimum of 36 credit units:*

(1) ARTH 120.3, 121.3, 24 senior credit units in the history of art, including at least 6 credit units in art before 1800 (these courses are indicated with a †) and at least 6 credit units in art after 1800.

(2) One of the 100-level studio courses (6 credit units).

Students wishing to take additional courses in art are advised to take 18 additional credit units in the history of art and 6 additional studio credit units.

Major in Art: Area II - History of Art (B.A. Three-year)

Students are required to take a minimum of 30 credit units:*

(1) ARTH 120.3, 121.3, 18 senior credit units in the history of art including 6 credit units in art before 1800 (these courses are indicated with a †) and 6 credit units in art after 1800.

(2) One of the 100-level studio courses (6 credit units).

*Art History and Studio Art are considered separate subject areas. Consequently, students may take a maximum of 42 credit units for the B.A. Three-Year and 60 credit units for the B.A. Four-Year in each of these subject areas.

Honours Program in History of Art

This program is intended both for students who wish to acquire a thorough knowledge of the history of art as a part of their general education and for those who wish to prepare for work leading to graduate degrees in the field.

A graduate degree in the history of art is normally the minimum qualification for employment in universities, museums and galleries. The following courses are required: ARTH 120.3, 121.3, one 100-level course (6 credit units) in studio art, 6 credit units from HIST 110.3, 111.3, 114.6, 120.6, 121.3, 122.3, 140.6, or 170.6 and 42 senior credit units in Art History provided that:

(1) at least 6 credit units are at the 400 level;

(2) at least 18 credit units are at the 300 level or higher;

(3) at least 6 credit units are in art before 1800 (these courses are indicated with a †) and at least 6 credit units are in art after 1800.

Eighteen other credit units are to be chosen in consultation with the department. Courses in Classics, English, French, German, History, Philosophy and Sociology are strongly recommended.

Double Honours in Art History and Studio Art

Thirty-six credit units in Studio Art including 6 credit units in foundation level drawing and three other studio areas, and ARTH 120.3, 121.3 and 30 senior credit units or the equivalent in Art History. At least 48 credit units in non-Art courses are required.

Double Honours in Art History and Another Subject

Students who are admitted to a Double Honours program (Art History and another subject) must be counseled in both departments. Students will fulfill the Art History portion of the program as follows: ARTH 120.3 and 121.3 or the equivalent; 30 senior credit units or the equivalent in Art History.

STUDIO COURSES

The Studio Area provides students with an intensive studio experience which explores technical, aesthetic, and theoretical concerns in a critical setting pertinent to the pursuit of art in our culture. Courses are offered in Drawing, Sculpture, Painting, Photography, Printmaking, and Extended Media. All studio majors are required to take 6 credit units in foundation-level drawing as well as foundation-level courses in at least two other studio areas. The program aims to educate students in both the practical and theoretical aspects of the visual language and to provide a thorough background for those who will pursue research and careers in the visual arts or arts-related fields. Studies are enriched by visiting artists and critics and the presence of graduate students from Canada and

abroad. In addition to the regular program, several courses are offered each summer during Spring and Summer Session. In addition to scheduled classes, students are expected to attend most auxiliary activities, such as guest lectures and local exhibitions. All students must allow time in their schedules for working a minimum of six hours per week for each studio class in which they are enrolled. Please note that more than two absences from scheduled classes and labs will adversely affect the student's evaluation.

Note: Laboratory fees are required by the department in printmaking, drawing, photography and sculpture. Details will be given in the *Registration Guide* and/or in course outlines.

Note: A student not majoring in art may count a second introductory studio course taken as a senior course.

Note: A number of art studio courses have been changed to 6 credit unit courses. Students with credit for a course at the "old" number level may not take for credit the course at the "new" number level.

Old and New Course Equivalencies

Old	New
ART 110.6 Art History	ARTH 120.3, 121.3
ART 135.6 Extended Media	ART 136.3
ART 335.6	ART 338.3, 339.3
ART 435.6	ART 438.3, 439.3
ART 420.6	ART 418.3, 419.3
ART 271.3, 272.3 Painting	ART 211.6
ART 371.3, 372.3	ART 311.6
ART 471.3, 472.3	ART 411.6
ART 473.3, 474.3	ART 421.6
ART 475.3, 476.3	ART 431.6
ART 181.3, 182.3 Drawing	ART 112.6
ART 281.3, 282.3	ART 212.6
ART 381.3, 382.3	ART 312.6
ART 481.3, 482.3	ART 412.6
ART 483.3, 484.3	ART 422.6
ART 485.3, 486.3	ART 432.6
ART 114.6 Sculpture	ART 141.3
ART 214.6	ART 241.3, 242.3
ART 314.6	ART 341.3, 342.3
ART 414.6	ART 441.3, 442.3
ART 424.6	ART 443.3, 444.3
ART 434.6	ART 445.3, 446.3
ART 116.6 Photography	ART 161.3

ART HISTORY COURSES

The discipline examines histories of the visual arts which include photography, sculpture, painting, button blankets, architecture, video, performance, installation, film, and digital imaging, among other media. The interrelations of the visual arts, popular culture, lived cultures and social structures are the focus of investigation.

COURSES IN OTHER DEPARTMENTS

FINAR 100.6 An Introduction to the Fine Arts
PHIL 271.3 Aesthetics (Recommended senior elective)

For details see the Courses section of the *Calendar*.

COLLEGE OF EDUCATION COURSES

The Department of Art and Art History offers the following Art Education courses in the College of Education towards the B.Ed. degree (for program requirements see the

College of Education section, for course descriptions see Courses).

EDART 303.3 Teaching Visual Art in Elementary Schools

EDART 311.3 Teaching Visual Art in Middle Years

EDART 331.3 Teaching Visual Art in the Secondary School

EDART 401.3 Textile Art for Classroom Teachers

EDART 411.3 Art and the Built Environment in Art Education

EDART 421.3 Ceramics for Teachers

EDART 433.3 Advanced Methodology in Art Education

EDART 441.3 Art History for Teachers

ASTRONOMY

See the Department of Physics and Engineering Physics in this section of the *Calendar*.

BIOCHEMISTRY

The Biochemistry program provides education and training in the molecular approach to the study of the life sciences. Individual student programs in Biochemistry can emphasize biotechnology, cell biochemistry, chemical approaches, metabolism, molecular biology, plant biochemistry, protein structure and function, or signal transduction. Programs in Biochemistry include essential prerequisite courses for life science professional schools and graduate studies in many areas of the life sciences. Graduates at all levels find employment in industry involved in many areas of biotechnology and other life science research enterprises.

Biochemistry offers three-year, four-year, and honours degree programs. By combining the biochemistry program with offerings from other departments and colleges, students can design a degree program that is either diverse or specialized.

ALL BIOCHEMISTRY DEGREE PROGRAMS

The following courses are required: BIOL 110.6, BIOCH 200.3, 211.3 or 220.3, 212.3, 230.3; CHEM 112.3, 115.3, 250.3, MICRO 214.3 or AP MC 212.3 and the Program Type C Requirements. BIOL 110.6 is a prerequisite for MICRO 214.3 and AP MC 212.3.

Additional biochemistry courses are required for the three-year, four-year or honours biochemistry programs, as listed below. In all programs, 6 credit units of open electives are permitted. Other courses must be chosen from natural science courses pertinent to Biochemistry offered by the College of Arts and Science (listed below as Science electives) or from the courses offered by other colleges listed below. Courses must be selected in consultation with an advisor in the Department of Biochemistry.

**MAJOR IN BIOCHEMISTRY
(B.SC. FOUR-YEAR)**

Additional courses: BIOCH 310.3, 311.3 or MICRO 391.3, BIOCH 490.0 and 12 credit units in biochemistry as electives.

**MAJOR IN BIOCHEMISTRY
(B.SC. THREE-YEAR)**

Additional courses: BIOCH 310.3 or 311.3 and any 3 credit units in biochemistry as an elective. (MICRO 391.3 may be used instead of BIOCH 311.3).

HONOURS IN BIOCHEMISTRY

Additional courses: Same as the four-year program described above, with the additional requirement of 6 credit units chosen from CHEM 221.3, 231.3, 242.3, and 243.3.

Biochemistry electives include biochemistry courses not listed as required (specifically BIOCH 211.3, 220.3, 412.3, 420.3, 430.3, 432.3, 435.3, 436.3, 488.3, 489.6). For the 4-year and honours programs, 3 credit units of the 12 credit units of Biochemistry electives required may be chosen from ANAT 325.3, BIOL 316.3, 331.3, 420.3; CHEM 456.3, CH E 461.3, MICRO 390.3, 417.3, 421.3 or PHSIO 337.3, 348.3.

Science electives include all courses in Anatomy and Cell Biology; Biochemistry; Biology except BIOL 105.3, 107.6, 108.6, 253.3; Chemistry; Computer Science; Mathematics except MATH 101.3; Microbiology and Immunology; Physics; Physiology; Statistics except STATS 103.3.

SUGGESTED SEQUENCE OF COURSES

Students entering 2nd, 3rd and 4th year must consult with a faculty advisor in the Biochemistry Department.

First Year

BIOL 110.6, CHEM 112.3 and 115.3 and other Program Type C Requirements.

Second Year

BIOCH 200.3, 211.3 or 220.3, 212.3, 230.3, CHEM 250.3, and MICRO 214.3 or AP MC 212.3.

Third Year

Students completing a three-year degree should enroll in BIOCH 310.3 or 311.3 or MICRO 391.3, 3 credit units in biochemistry as an elective, and any outstanding Program Type C requirements. Students in the four-year or honours program should enroll in BIOCH 310.3, 311.3 or MICRO 391.3, and in 3-6 credit units of biochemistry electives. Upper-year biochemistry courses (BIOCH 412.3, 420.3, 430.3, 432.3, 435.3, 436.3) are offered only in alternate years as are some of the other senior life science classes. Honours students should enroll in at least 3 credit units of CHEM 221.3, 231.3, 242.3 or 243.3.

Fourth Year

Students in 4th year should complete the biochemistry and chemistry course requirements as well as any outstanding Program Type C Requirements. Enrolment in BIOCH 490.0 is required. BIOCH 488.3 or 489.6 are recommended.

DOUBLE HONOURS PROGRAMS

Double honours programs with the Departments of Anatomy and Cell Biology, Biology, Chemistry, Microbiology and Immunology, and Physiology can be arranged. Students considering these programs must consult a faculty advisor in the department of Biochemistry after their 1st, 2nd and 3rd year. Students considering these options should choose courses that are required by both departments. These programs require careful planning.

BIOCHEMISTRY AND BIOTECHNOLOGY

The Department of Biochemistry offers B.Sc. Four-year and Honours degrees in Biochemistry and Biotechnology. In addition to Biochemistry, the Biotechnology program has an emphasis on molecular biology, ethics, public policy considerations, and commercial issues. Programs can be designed with an emphasis on animal, medical, microbial, or plant applications. Biochemistry and Biotechnology is an interdisciplinary program needing careful planning, and early consultation with an advisor is required. Students must consult with an advisor from the Biochemistry department at the end of their first, second and third years.

**MAJOR IN BIOCHEMISTRY AND BIOTECHNOLOGY
(B.SC. FOUR-YEAR)**

Program Requirements:

(1) BIOL 110.6; CHEM 112.3, 115.3; and 6 credit units in approved Natural Science courses

(2) Biochemistry and Biotechnology Core Requirements: ANAT 200.3; BIOCH 200.3, 211.3 or 220.3, 212.3, 230.3, 310.3, 311.3 or MICRO 391.3, 436.3, 490.0, and 6 credit units of senior Biochemistry electives (see list above); BIOL 211.3 or MICRO 216.3; CHEM 250.3; MICRO 214.3 or AP MC 212.3.

(3) PHIL 236.3 and additional courses such that (a) and (b) are satisfied as follows:

(a) 9 credit units are taken from POLST 362.3, SOC 292.3, 323.3, AG EC 292.3, COMM 345.3, 346.3.

(b) Additional courses are taken such that Program Type C requirements 2-5 are satisfied, with the recommendation that 6 credit units are chosen from the courses listed in (a) and/or from HIST 284.3 and AGRIC 222.3. (Note that COMM 345.3, 346.3, and AGRIC 222.3 cannot be used to satisfy Program Type C requirements 2-5, but can be used in requirement as open electives).

(4) Science Electives: The remaining degree requirements to 120 credit units should be chosen primarily from science courses that are pertinent to Biochemistry. The following courses are recommended: All senior Biochemistry courses; ANAT 330.3, 331.3; AN SC 331.3, 470.3; H SC 208.6; BIOL 205.3, 217.3, 218.3, 316.3, 331.3; MICRO 387.3, 416.3, 417.3, 421.3, 425.3; PHSIO 337.3; PL SC 411.3, 416.3.

HONOURS IN BIOCHEMISTRY AND BIOTECHNOLOGY

The program requirements include those for the B.Sc. four-year degree program described above, with the additional requirements that 3 credit units must be chosen from CHEM 221.3, 231.3, 242.3, and 9 rather than 6 credit units of senior Biochemistry electives must be taken.

COURSES IN OTHER COLLEGES AND DEPARTMENTS

For details, see the Courses section of the *Calendar*.

AP MC 212.3 General Microbiology (may be used in place of MICRO 214.3 for degree requirements).

The following courses may be used as senior science electives:

AN SC 313.3 Animal Breeding and Genetics

AN SC 470.3 Applied Animal Biotechnology

AP MC 425.3 Food Microbiology

AP MC 433.3 Microbial Insecticides

AP MC 434.3 Industrial Microbiology I

AP MC 435.3 Microbial Techniques

AP MC 437.3 Industrial Microbiology II

FD SC 415.3 Advanced Food Chemistry

FD SC 417.3 Food Analysis

KIN 121.3 Functional Effects of Physical Activity

KIN 222.3 Biomechanics I

KIN 225.3 Introductory Exercise Physiology I

KIN 226.3 Introductory Exercise Physiology II

KIN 425.3 Physiology of Exercise

KIN 428.3 Nutrition, Drugs and Physical Activity

KIN 442.3 Biomechanics II

NUTR 120.3 Basic Nutrition

NUTR 220.3 Advanced Nutrition

NUTR 305.3 Research Methods.

PL SC 314.3 Statistical Methods

PL SC 345.3 Biological Activity and Fate of Herbicides

PL SC 405.3 Evolution and Population Genetics

PL SC 411.3 Plant Breeding

PL SC 416.3 Applied Plant Biotechnology

PL SC 417.3 Crop Physiology

Students intending to major in biology are strongly advised to take CHEM 112.3, 115.3, before, or concurrently with, BIOL 110.6.

HONOURS IN BIOLOGY

The Honours Program in Biology is designed to permit specialization in various fields. The required courses are: BIOL 110.6, 203.6, 204.3, 205.3, 211.3, 350.3, 414.3; one of BIOL 253.3 or 263.3; one of ANAT 200.3, BIOL 217.3 or 331.3; PL SC 314.3* or another senior 3 credit-unit course in statistics and 18 additional credit units in biology which must be approved by the department. Other requirements are CHEM 112.3, 115.3 and 3 credit units of senior CHEM; BIOCH 200.3 and 3 credit units senior BIOCH or CHEM; and 12 credit units selected from CMPT 111.3 or 112.3, 115.3, GEOG 111.3, 112.3, 210.3, GEOL 121.3, 122.3, MATH 110.3, 112.3 or 116.3, PHYS 111.6 or 121.6. No more than 6 credit units in geography may be used for this requirement. It is recommended that students intending to do graduate work obtain a reading knowledge of a second language. A comprehensive honours oral examination will be given in the fourth year.

Students are advised to register for the following courses:

First Year

BIOL 110.6, CHEM 112.3, 115.3 (students intending to go on in biology are strongly advised to take these chemistry courses before, or concurrently with, BIOL 110.6 since CHEM 112.3 and 115.3 are prerequisites for some senior courses in biology), and 18 other credit units.

Second Year

At least 12 credit units in biology, BIOCH 200.3 and 3 credit units senior BIOCH or senior CHEM. Other courses to a total of 30 credit units.

Third Year

15 credit units in biology, PL SC 314.3* or another senior 3 credit unit course in statistics, and 12 other credit units.

Summer of Third Year

Honours Field Course BIOL 350.3.

Fourth Year

BIOL 414.3, 12 other credit units in biology, and 15 other credit units.

*STATS 242.3, 245.3 and 246.3 also meet this requirement.

Students intending to enter the honours program should discuss their program with the Head of the Department before planning their second year.

Students in the fourth year should note that 800-level Biology courses may be taken with permission of the department.

It is recommended that students specializing in biology attend seminars regularly.

With the approval of the department, certain courses offered by other departments may be counted as biology courses in a major or honours program. Courses accepted without special approval are listed at the end of this section.

BIOLOGY

**MAJOR IN BIOLOGY
(B.SC. FOUR-YEAR)**

Required courses: BIOL 110.6, 203.6, 204.3, 205.3, 211.3; one of BIOL 253.3 or 263.3; one of ANAT 200.3, BIOL 217.3 or 331.3; 9 additional approved credit units in biology; BIOCH 200.3 and 3 credit units senior BIOCH OR CHEM; CHEM 112.3, 115.3 and 3 credit units senior CHEM.

**MAJOR IN BIOLOGY
(B.SC. THREE-YEAR)**

Required courses: BIOL 110.6, 203.6, 204.3, 205.3; two of: BIOL 211.3, 253.3, 263.3, ANAT 200.3, either BIOL 217.3 or 331.3; 6 additional credit units in BIOL; CHEM 112.3, 115.3 and 3 credit units senior CHEM.

DOUBLE HONOURS

For Double Honours in Biology and another subject, students will require the following Biology courses: BIOL 110.6, 203.6, 204.3, 205.3, 211.3, 350.3, 414.3; BIOL 253.3 or 263.3; 217.3 or 331.3 or ANAT 200.3; PL SC 314.3 or an equivalent statistics course. Students also require CHEM 112.3, 115.3 and 3 credit units senior CHEM, BIOCH 200.3 and 3 credit units senior BIOCH or senior CHEM, and 12 credit units selected from CMPT 111.3 or 112.3, 115.3, GEOG 111.3, 112.3, 210.3, GEOL 121.3, 122.3, MATH 110.3, 112.3 or 116.3, PHYS 111.6 or 121.6. No more than 6 credit units in geography may be used for this requirement.

A comprehensive oral examination in biology will be given in the fourth year.

AGRICULTURAL BIOLOGY

Students are reminded of the possibility of majoring in biology in the College of Agriculture under the Agricultural Biology Option. Consult the section on Fields of Specialization in the College of Agriculture, and the program advisor in the Department of Biology.

MAJOR IN BIOLOGY AND BIOTECHNOLOGY (B. SC. FOUR YEAR)

Program requirements:

(1) BIOL 110.6; CHEM 112.3, 115.3 and 3 credit units of senior CHEM; 6 credit units of approved Natural Sciences chosen from PHYS 111.6; MATH 110.3, 112.3 or 116.3; GEOG 111.3, 112.3, 210.3; GEOL 121.3, 122.3; CMPT 111.3 or 112.3, 115.3 (PHYS 111.6 is recommended).

(2) 24 credit units in core Biotechnology courses: ANAT 200.3; BIOCH 200.3, 212.3, 230.3, 311.3 or MICRO 391.3; BIOL 211.3, 316.3; MICRO 214.3 or AP MC 212.3.

(3) BIOL 203.6, 204.3, 205.3, one of BIOL 253.3 or 263.3; 9 additional approved credit units in Biology.

(4) PHIL 236.3 plus additional courses such that (a) and (b) are satisfied as follows:

a) 9 credit units are taken from SOC 292.3, 323.3; AG EC 292.3; POLST 362.3; COMM 345.3, 346.3 [SOC 292.3, 323.3; AG EC 292.3; POLST 362.3 may be used in distribution requirements 2, 3 or 5 of a Type C program].

b) 39 additional credit units are taken such that type C distribution requirements 2-5 are satisfied

HONOURS IN BIOLOGY AND BIOTECHNOLOGY

Program Requirements:

(1) BIOL 110.6; CHEM 112.3, 115.3 and 3 credit units of senior CHEM; 6 credit units of approved Natural Sciences chosen from: PHYS 111.6; MATH 110.3, 112.3 or 116.3; GEOG 111.3, 112.3, 210.3; GEOL 121.3, 122.3; CMPT 111.3 or 112.3, 115.3. (PHYS 111.6 is recommended as part of these 6 credit units).

(2) 27 credit units in core Biotechnology courses: ANAT 200.3; BIOCH 200.3, 212.3; BIOCH 311.3 or MICRO 391.3; BIOL 211.3,

316.3; MICRO 214.3 or AP MC 212.3; 6 credit units chosen from one of the following pairs: BIOL 217.3 and 218.3, BIOL 217.3 and 366.3, BIOL 205.3 and 331.3.

(3) 12 credit units chosen from ANAT 331.3; BIOCH 230.3, 436.3; MICRO 216.3, 387.3, 417.3, 425.3; AN SC 313.3 470.3; PL SC 411.3, 416.3; BIOL 480.3. (BIOL 480.3 is recommended as part of these 12 credit units.)

(4) 21 credit units chosen from BIOL 203.6, 204.3, 205.3, 217.3, 218.3, 253.3, 263.3, 325.3, 326.3, 342.3, 350.3, 366.3, 414.3, 420.3.

(5) PHIL 236.3 plus additional courses such that (a) and (b) are satisfied as follows:

(a) 9 credit units are taken from SOC 292.3, 323.3; AG EC 292.3; COMM 345.3, 346.3, POLST 362.3, HIST 284.3; AGRIC 222.3. [Note that COMM 345.3, 346.3, AGRIC 222.3 cannot be used in Type C distribution requirements.]

(b) 24 additional credit units are taken ensuring that Type C distribution requirements 2-5 are satisfied.

(6) PL SC 314.3 or STATS 245.3 or 246.3 or 242.3.

LAND USE AND ENVIRONMENTAL STUDIES (BIOLOGY MAJOR)

Interested students should refer to the Land Use and Environmental Studies section of the *Calendar* and should consult with Dr. Rever-DuWors. LUEST Chair.

PALAEOBIOLOGY

The Departments of Anthropology and Archaeology, Biology and Geological Sciences have developed an interdisciplinary program in Palaeobiology. Interested students should refer to the Palaeobiology section of the *Calendar* and contact the chairperson of the administrative committee.

COURSES IN OTHER DEPARTMENTS AND COLLEGES

The following courses may be credited toward a biology major or honours program. For details see the Courses section of the *Calendar*.

ANAT 200.3 Introduction to Cell Biology

AN SC 313.3 Animal Breeding and Genetics

AN SC 470.3 Applied Animal Biotechnology

AP MC 212.3 General Microbiology

GEOL 332.3 Palaeontology

GEOL 343.3 Facies Models

GEOL 433.3 Evolution of the Vertebrates

GEOL 435.3 Microfossils

GEOL 437.3 Palaeoecology

GEOL 439.3 Palaeobotany

MICRO 214.3 Basic and Medical Microbiology

MICRO 387.3 Microbial Genetic Systems

PL SC 314.3 Statistical Methods

PL SC 405.3 Evolution and Population Genetics

PL SC 411.3 Plant Breeding

PL SC 412.3 Physiological Plant Ecology

PL SC 416.3 Applied Plant Biotechnology

PL SC 432.3 Conservation of Plant Genetic Diversity

PL SC 436.3 Wildland Ecology

STATS 245.3 Introduction to Statistical Methods

STATS 246.3 Introduction to Biostatistics

VBMS 425.3 Introduction to Toxicology

BIOTECHNOLOGY

Interdisciplinary degree programs in Biotechnology are offered through the co-operation of several departments and Colleges. The programs provide education and training in the science and the social, commercial and ethical issues associated with Biotechnology.

Bachelor of Science Honours degrees, following Program Type C, are offered in four areas: Cell Biology and Biotechnology (see Department of Anatomy and Cell Biology), Biochemistry and Biotechnology (see Department of Biochemistry), Biology and Biotechnology (see Department of Biology), and Microbiology and Biotechnology (see Department of Microbiology and Immunology). Each Bachelor of Science program consists of a core of science courses related to biotechnology, plus a selection of other courses in the area of biotechnology and the subject area. Students also must complete specific courses in philosophy, sociology, business, and economics. For more information, please see the corresponding department listing.

A Bachelor of Arts Four-year degree, following program Type B, is offered in Sociology of Biotechnology. This program consists of the courses in biotechnology listed below, as well as courses in commerce, agricultural economics, sociology and philosophy. For more information, please see the Department of Sociology.

CATHOLIC STUDIES

For courses descriptions see the Courses section of the *Calendar*. These courses are not acceptable for elective credits in the College of Arts and Science.

CHEMISTRY

Chemistry is the science that deals with the structure and transformations of material substances. It occupies a central place among the sciences because it takes the fundamental ideas of mathematics and physics, adapts them to chemical systems, and applies them in areas ranging from biotechnology to advanced materials to environmental science. Product development in areas such as pharmaceuticals and electronic materials depend on developments in chemistry, and chemistry is key in environmental and medical research.

Through appropriate course selection, students can specialize in analytical, bioinorganic, bioorganic, computational, inorganic, organic, physical and theoretical chemistry.

The four-year programs leading to a B.Sc. Honours or B.Sc. Four-year degree meet requirements for professional qualification as a chemist and membership in the Canadian Society for Chemistry.

CURRICULUM CHANGES

Chemistry programs were modified in 2000 and again in 2002. Students enrolled prior to 2000 should consult with a faculty advisor in the Department of Chemistry.

The introductory CHEM courses were changed in 2002. Students with credit for CHEM 111.3 can take CHEM 221.3, 231.3, 242.3 and 250.3. Students with credit for CHEM 251.3 can take CHEM 252.3 or 255.3.

MAJOR IN CHEMISTRY (B. SC. FOUR-YEAR)

Students in the Four-year program are required to take 120 credit units including:

CHEM 112.3, 115.3, 221.3, 231.3, 242.3, 243.3, 250.3, 252.3 or 255.3, 322.3, 332.3, 342.3, 346.3, 353.3, 354.3, 402.0; a 3 credit-unit 400-level chemistry elective chosen in consultation with a faculty advisor in the Department of Chemistry; CMPT 111.3 or 112.3; 6 credit units of 100-level ENG; PHYS 121.6; MATH 110.3, 116.3, 225.3 and 264.3 or 266.3; 18 credit units to fulfill Requirements C2, C3 and C5; 30 credit units of electives.

Students in the four-year major program may receive credit for a maximum of 60 credit units total in chemistry and a maximum of 54 credit units in 100-level courses.

The department suggests that students follow the course sequence suggested for the Honours program to allow for maximum flexibility in course selection in their final year.

MAJOR IN CHEMISTRY (B. SC. THREE-YEAR)

Students in the Three-year program are required to take 90 credit units including:

CHEM 112.3, 115.3, 221.3, 231.3, 242.3, 243.3, 250.3, 252.3 or 255.3, 322.3, and 332.3. Other requirements are listed under Program Type C: Natural Sciences.

Up to 12 additional credit units in chemistry may be taken as electives.

Students are advised to include CHEM 112.3 and 115.3; MATH 110.3 and 116.3 in the courses they select for the first year, and at least 12 credit units in chemistry in their second year.

Students in the three-year major program may receive credit for a maximum of 42 credit units total in chemistry and a maximum of 48 credit units in 100-level courses.

HONOURS IN CHEMISTRY

Students in the honours program are required to take 120 credit units including:

CHEM 112.3, 115.3, 221.3, 231.3, 242.3, 243.3, 250.3, 252.3 or 255.3, 322.3, 332.3, 342.3, 346.3, 353.3, 354.3, 402.0, 482.3; 15 credit units of senior chemistry electives including at least 12 credit units at the 400-level chosen in consultation with a faculty advisor in the Department of Chemistry; CMPT 111.3 or 112.3; 6 credit units of 100-level ENG., PHYS 121.6; MATH 110.3, 116.3, 225.3 and 264.3 or 266.3; 18 credit units to fulfill Requirements C2, C3 and C5; 15 credit units of electives.

Students intending to enter or transfer into the honours program are required to consult with the Head of the Department.

Students in the honours program may receive credit for a maximum of 60 credit units total in chemistry and a maximum of 54 credit units in 100-level courses.

The department suggests the following course sequence:

First Year: CHEM 112, 115, 250, 6 credit units of 100-level ENG, MATH 110, 116, PHYS 121, and 3 credit units to fulfill Requirements C2, C3 or C5.

Second Year: CHEM 221, 231, 242, 243, 252 or 255, CMPT 111 or 112, MATH 225, and 9 credit units to fulfill Requirements C2, C3 or C5.

Third Year: CHEM 322, 332, 342, 346, 353, 354, MATH 264 or 266, a 3-credit-unit elective, and 6 credit units to fulfill Requirements C2, C3 or C5.

Fourth Year: CHEM 402, 482, 15 credit units of senior chemistry electives including at least 12 credit units at the 400-level, and 12 credit units of electives.

DOUBLE HONOURS

A Double Honours program allows concentration in chemistry and a second subject of interest. Students are required to take CHEM 112.3, 115.3, 221.3, 231.3, 242.3, 243.3, 250.3, 252.3 or 255.3, 322.3, 332.3, 342.3, 402.0; 3 credit units chosen from CHEM 346.3, 353.3 and 354.3; and 36 credit units in the second area of concentration.

Students who wish to take a Double Honours Program must consult the departments concerned. Admission is based on departmental recommendation and College approval.

MINOR IN CHEMISTRY

Students who, in conjunction with any Four-year or Honours degree program within the College of Arts and Science, take 21 credit units or more of chemistry courses will receive a minor in chemistry.

CHINESE

For information on relevant programs see the Department of Religious Studies in this section of the *Calendar*.

CLASSICAL AND NEAR EASTERN ARCHAEOLOGY

Administrative Committee: C.M. Foley (STM), **A.D. Maingon** (Anthropology and Archaeology), E.G. Walker (Anthropology and Archaeology).

The Department of Anthropology and Archaeology and St. Thomas More College offer a joint program in archaeology and classical cultures. This major enables students interested in archaeology and in the ancient cultures of the Mediterranean region to pursue this interest through a single interdepartmental major.

Classical and Near Eastern Archaeology is available as a B.A. Four-year and B.A. Honours program (Type A). Sections of some courses in this program are taught by the faculty in St. Thomas More College.

Students interested in this program should consult with either the Department of Anthropology and Archaeology or St. Thomas More College. Students majoring in this program must select their courses in consultation with the Program Administrative Committee.

Course requirements:

(1) ARCH 112.3 and 116.3;

(2) 42 credit units selected from ARCH 243.3 (formerly CLASS 243.3), 244.3 (formerly CLASS 244.3), 250.3, 251.3, 257.3, 258.3, 356.3, 358.3, 361.6, 362.6 (formerly CLASS 360.6), 461.3, 462.3, 465.3, 498.3 (as required); CLASS 240.3, 242.3, 247.3, 248.3, 356.3, 357.3;

(3) At least 6 credit units will be 400-level courses from category (2) above or as approved by the Administrative Committee;

For the B.A. Four-year program, students are required to take, in addition to requirements (1) through (3) listed above, an additional 6 credit units selected from: ANTH 220.3, 230.3, 329.3, 339.3; ARCH 270.3, CLASS 220.3, 225.3, 233.3; GREEK 112.3 and 113.3, LATIN 112.3 and 113.3, HEB 111.6; a 3 credit-unit senior course not included in this list may be selected with the written approval of the Administrative Committee.

For the B.A. Honours program, students are required to take, in addition to requirements (1) through (3) listed above:

a) 6 credit units selected from: GREEK 112.3 and 113.3, or LATIN 112.3 and 113.3, or HEB 111.6;

b) 6 credit units selected from: ANTH 220.3, 230.3, 329.3, 339.3; ARCH 270.3, CLASS 220.3, 225.3, 233.3; GREEK 202.3 and 203.3, LATIN 202.3 and 203.3, HEB 201.6; a 3 credit-unit senior course not included in this list may be selected with written approval of the Administrative Committee.

Note: Students must ensure that they have the appropriate prerequisites for the senior courses in which they wish to register in the program. Students who have taken CLASS 243, 244 or 360 may not obtain additional credit for ARCH 243, 244 or 362.

CLASSICAL, MEDIAEVAL AND RENAISSANCE STUDIES

Director: **Jene Porter** (Political Studies)

Administrative Committee: P. Burnell (History), M. Cichon (English), J. Henderson (English), A. Kalinowski (History), F. Klaassen (History), A. Maingon (Anthropology & Archaeology), N. McCloskey (History), D. Parkinson (English), J. Porter (History), M. Swan (Emeritus).

Classical, Mediaeval and Renaissance Studies is a multi-disciplinary program offered by the Department of History. The Classical, Mediaeval, and Renaissance Studies Program examines the origin and evolution of a civilization. An understanding of a civilization requires the integration of three dimensions: the historical dimension, including social and political developments; the intellectual dimension, including philosophic, scientific, and religious factors; the cultural dimension, including the arts, drama, literature, and architecture.

A CMRS student interested in the politics of power might examine Thucydides' analysis of democratic Athens' naval empire, assess Roman imperialism as revealed in archaeological sites in conquered North Africa and Europe, and investigate how Machiavelli's reading of the Classical past shaped his advice for Renaissance rulers. A student interested in Michelangelo would examine not only this great artist's own work, but would locate him fully within the society of his time - a Renaissance Italy steeped in a matrix of intellectual, political, and artistic traditions reaching back to the Athens of Sophocles, Plato, and Praxiteles. A student studying the early Church Fathers would examine the earlier philosophical, literary, and artistic traditions that inform their thought, and would also study subsequent influence on cultural productions - theological, philosophical, literary, and artistic.

Relevance to Students: Why CMRS?

A major focus of CMRS is on knowledge that is foundational in the sense that it explains key elements of the present, for example: institutions like courts, parliaments, universities, and museums; the different kinds of states and empires; different religions; the modern linguistic atlas; the curriculum of higher learning; different genres in literature and the arts; philosophic positions such as realism, materialism, and idealism.

Because CMRS examines states, cultures, intellectual movements, and civilizations that have run their full course - rising, flourishing, falling or undergoing transformation - it enables students to view the contemporary world and its doctrines through historically "experienced" eyes that have seen the full range of individual and collective behaviour of humans beings and states, and have seen the consequences of ideas and ideologies. It also demands that students grapple not only with the self-understanding of past civilizations, but by inference, of their own. Thus, the CMRS graduate can face more directly and confidently the present and future.

As a liberal arts field, CMRS develops the research skills required for large, complex, and sensitive projects. Probing the greatest minds of a civilization hones the intellect, teaches analysis and argument, and promotes written and oral competence in language.

Not surprisingly, graduates in CMRS fields have found employment in an enormous array of positions: teaching in schools, teaching in universities, the practice of law, the military, information and library sciences, editing, business, educational administration, public administration, foreign service, journalism, and politics.

Both a B.A. Four-Year and Honours program will be offered in Classical, Mediaeval and Renaissance Studies. Each will consist of a core of 66 credit units chosen from the following requirements such that not more than 42 credit units may be in one subject, not more than 18 credit units may be at the 100-level, and no one course may be applied twice in satisfying (1) through (5).

Most 200-level courses have 100-level prerequisites. Students should therefore consider the following recommendations to fulfill prerequisite requirements for the CMRS program: Art History 120.3, Classics 110.3, 111.3, Greek 112.3, 113.3, History 110.3, 111.3, 114.6, 121.3, or a total of 30 credit units of university courses completed.

(1) Core Requirements: CLASS 110.3, and 111.3 or HIST 114.6

(2) Language Requirements:

- a) Honours Program - 6 credit units chosen from language classes
- b) Four-Year Program - 6 credit units chosen from language classes or from classes reading texts translated into English.

(3) Period Requirements: a total of 18 credit units with 6 credit units chosen from each of three categories:

- a) Classical World
- b) Late Antiquity and Early Middle Ages
- c) Later Middle Ages and Renaissance

(4) Areas of Concentrations: a total of 24 credit units chosen from one of the following areas:

- a) History and Archaeology
- b) Language
- c) Literature and Fine Arts
- d) History of Ideas and Classical Tradition

(5) Classical, Medieval and Renaissance Studies Electives: 12 credit units

(6) Students in the Honours Program must complete HIST 490.0.

The following additional rules apply to the choice of courses under (1) to (5):

(7) At least 6 credit units at the 300-level are required in both the Four-Year and Honours Programs.

(8) At least 12 credit units in seminars at the 400-level are required for Honours.

Students interested in pursuing the CMRS program should contact the Department of History or the CMRS Director.

Honours Program

6 credit units chosen from the following: ENG 301.3, 306.3, 310.3, 315.3, an intermediate French, German, Spanish, Russian or Ukrainian course, GREEK 112.3 and 113.3, HEB 111.6, LATIN 112.3 and 113.3

Language Requirements

Four-Year Program – 6 credit units chosen from one of a) above; from a beginning or intermediate French, German, Spanish, Russian or Ukrainian course; or from the following classes reading texts translated into English: CLASS 226.3, 227.3, 228.3, 259.3, LIT 100.6, RELST 253.3, 254.3, RUSS 205.3, 235.3, UKR 205.3, 310.3.

Period Requirements

Classical World: CLASS 220.3, 225.3, 226.3, 227.3, 228.3, 233.3, 234.3, 240.3, 242.3, 247.3, 248.3, 252.3, HIST 200.6, 201.6, PHIL 208.3, 209.3, RELST 227.3

Late Antiquity and Early Middle Ages: CLASS 252.3, 259.3, ENG 210.3, 215.3, 217.3, HIST 202.3, 211.3, PHIL 210.3, 211.3, RELST 227.3, 240.3, 315.3

Later Middle Ages and Renaissance: ARTH 260.3, ENG 311.3, 313.3, 314.3, 315.3, 317.3, 320.6, 321.6, 323.6, 386.3, HIST 205.3, 213.6, 225.6, PHIL 211.3, RELST 227.3, 240.3.

Concentrations

History & Archaeology: CLASS 220.3, 225.3, 233.3, 234.3, 247.3, 248.3, 252.3, 356.3, 357.3, HIST 200.6, 201.6, 202.3, 205.3, 211.3, 213.6, 225.6, 300.3, 301.3, 309.3, 329.3, 330.3, 400.6, 402.3, 403.3, 413.3, 421.3, 423.3, 424.3, 499.6

Language: ENG 301.3, 306.3, 310.3, 315.3, 390.6, FR 303.3, 308.3, 309.3, 407.3, 408.3, 409.3, GERM 231.6, GREEK 112.3, 113.3, 202.3, 203.3, 398.3, 498.3, HEB 111.6, 201.6, LATIN 112.3, 113.3, 202.3, 203.3, 301.3, 398.3, 498.3, LING 232.3, 233.3

Literature and Fine Arts: ARTH 120.3, 260.3, 308.3, 309.3, 406.6, CLASS 226.3, 227.3, 228.3, 233.3, 240.3, 242.3, 259.3, 333.3, 343.3, DRAMA 201.6, ENG 301.3, 306.3, 310.3, 311.3, 313.3, 314.3, 315.3, 320.6, 321.6, 323.6, 325.6, 401.6, 402.3, 403.6, 404.3, 405.6, 406.3, FR 220.3, 251.3, 308.3, 309.3, 317.3, 318.3, 407.3, 408.3, 409.3, GERM 212.6, 231.6, GREEK 298.3, 498.3, HIST 413.3, LATIN 301.3, 398.3, 498.3, MUS 361.3, 362.3, RELST 253.3, 254.3, 326.3, SPAN 305.3.

History of Ideas and Classical Tradition: ARTH 260.3, CLASS 233.3, 252.3, 259.3, 341.3, ENG 370.6, 377.3, 378.6, LING 232.3, 233.3, HIST 330.3, 413.3, 421.3, 423.3, PHIL 208.3, 209.3, 210.3, 211.3, 240.3, 412.3, 413.3, POLST 235.6, 331.3, 333.3, RELST 253.3, 254.3, 315.3, 361.3, 363.3.

Electives

Classical, Mediaeval and Renaissance Studies Electives: 12 credit units chosen from a) - d) above or from the following list: FR 496.3, HIST 340.3, 343.3, MUS 140.3, 346.3, 370.3, 450.3, RELST 225.3, 328.3, 350.3, 351.3, 352.3, 354.3, 356.3, 359.3, 360.3, SEML 305.3, 401.6, WGST 409.3.

CLASSICS

Classics has for its subject matter the ancient "classical" civilizations of Greece and Rome from the Minoan and Mycenaean ages to the fall of the Roman Empire in the West. The importance of a knowledge of these civilizations for the study and understanding of Western people cannot be overstated, for, as the development and character of a human being are already present at birth, so the seeds of the development and special characteristics of Western civilization are to be found in the ancient world. Intellectually and artistically the period from Homer (700 B.C.E.) to St. Augustine (354-430 C.E.) represents one of the most creative eras in human history. Students can study this period in the original languages or in translation. Courses in Greek and Latin are offered at all levels. (Greek and Latin courses are listed under their respective subjects in the Courses section.) Courses in translation, for which no knowledge of the ancient languages is required, cover the major aspects of these civilizations: archaeology, history, art, literature, philosophy, religion, and mythology.

Classical, Mediaeval and Renaissance Studies, and Classical and Near Eastern Archaeology are new interdisciplinary programs (honours and four-year majors) involving Classics and other disciplines. See the appropriate section of the *Calendar* for details of these programs.

Effective September 2001, the College is no longer offering the following programs: Major in Classics (B.A. Four-Year and Three-Year), Honours in Classics, Double Honours in Classics and Another Discipline, and Ancient History and Classical Culture. However, students who have already entered one of these programs will be allowed to complete their degrees under the previous program regulations; approved substitutions will be permitted for required courses that may be discontinued.

CLASSICAL AND NEAR EASTERN ARCHAEOLOGY

The Department of Anthropology and Archaeology offers an interdisciplinary program in the archaeology of the ancient cultures of the Mediterranean region. This Four-year or Honours degree program enables students to pursue an interest in this subject through a single interdepartmental program. Students interested in this program should see the separate entry under Classical and Near Eastern Archaeology.

CLASSICAL, MEDIAEVAL AND RENAISSANCE STUDIES

Classical, Mediaeval and Renaissance Studies is a multi-disciplinary program offered by the Department of History. Intended to provide students with a richer understanding and deeper appreciation of western civilization between 700 B.C.E. and 1600 C.E., it features a combination of required courses (survey, language, and periods) and elective fields (History & Archaeology; Language; Literature & Fine Arts; History of Ideas & Classical Tradition). Students interested in these Four-Year or Honours programs, should

see the separate entry under Classical, Mediaeval and Renaissance Studies.

MINOR IN CLASSICS

This minor may be taken in conjunction with any Four-year major or Honours program. Students are required to take CLASS 110.3 and 111.3, and 18 credit units selected from: CLASS 104.3, senior courses in Classics, and courses in Greek and Latin.

RELATED LANGUAGE COURSES

The College offers courses in Greek, Hebrew and Latin; for course descriptions see the respective subjects in the Courses section.

COLLEGE SCHOLARS

The guidelines for College Scholar individual research projects are described in detail at the beginning of the "Descriptions of Programs" in this section of the *Calendar*. These courses credit only as electives. Please consult the Office of the Dean for more information.

COMPUTER SCIENCE

Students who are following the new high school mathematics curriculum should note that Mathematics C30 will also be needed by computer science majors.

MAJOR IN COMPUTER SCIENCE (B.SC. FOUR-YEAR)

Courses required for the Four-year major are CMPT 111.3 or 112.3, 115.3, 215.3, 220.3, 250.6, 260.3, and 24 credit units in 300- or 400-level computer science courses subject to the following constraints:

(1) There must be at least 3 credit units from each of four of the following six areas:

- CMPT 317.3, 374.3
- CMPT 321.3, 330.3
- CMPT 340.3
- CMPT 360.3, 361.3
- CMPT 370.3, 371.3
- CMPT 393.3, 394.3, MATH 313.3

(2) There must be at least 6 credit units in 400-level courses.

For the Four-year program, MATH 313.3 can be counted as a computer science course. Students are required to take MATH 110.3, and either 112.3 or 116.3; either MATH 264.3 or 266.3; or E E 326.3; and either STATS 242.3 or 245.3. They are advised to take MATH 110.3, 116.3, 266.3; STATS 241.3 and 242.3.

Students are required to take 3 credit units in the business science area; COMM 102.3, 201.3, 202.3, 203.3, 204.3; 205.3, 206.3, 208.3, 301.3; ECON 111.3, 114.3. Students are required to take an additional 3 credit units in the physical sciences, business sciences or engineering. These 3 credit units must be completed in addition to the 18 credit units of natural science courses used in Requirement 1 and may *not* include courses chosen from computer science, mathematics or statistics.

MAJOR IN COMPUTER SCIENCE (B.SC. THREE-YEAR)

Courses required for the 30 credit unit major are CMPT 111.3 or 112.3, 115.3, 215.3, 220.3, 250.6, 260.3, and 9 credit units in computer science subject to the approval of the department. Students are required to take MATH 110.3, and 116.3 or 112.3; and STATS 242.3 or 245.3. They are advised to take MATH 110.3, 116.3, 266.3, STATS 241.3, 242.3.

HONOURS IN COMPUTER SCIENCE

Courses required for the honours program are CMPT 111.3 or 112.3, 115.3, 215.3, 220.3, 250.6, 260.3, 360.3, 361.3, 400.3 and 21 credit units in 300- or 400-level computer science courses subject to the following constraints:

- there must be at least 3 credit units in three of the five areas a, b, c, e, f, listed under (1) for the four-year degree (above).
- there must be at least 9 credit units in 400-level courses.

For the honours program, MATH 313.3 can be counted as a computer science course. Students are required to take MATH 110.3, 116.3, 266.3, STATS 241.3, 242.3, and 3 credit units in the business science area: COMM 102.3, 201.3, 202.3, 203.3, 204.3, 205.3, 206.3, 208.3, 301.3; ECON 111.3, 114.3. Students are required to take an additional 3 credit units in the natural sciences, business sciences or engineering.

Software Engineering Option

Students can complete either the regular program in the Honours program (51 credit units) described above, or the Software Engineering track (51 credit units). The Software Engineering track requires completion of CMPT 111.3 or 112.3, 115.3, 215.3, 250.6, 260.3, 330.3, 340.3, 360.3, 370.3, 371.3, 374.3, 470.3, 490.3. For those students **not** in the Professional Internship Option, CMPT 405.3 and 6 additional credit units in computer science are required, including at least 3 credit units numbered 410 or higher. For those students in the Professional Internship Option, 9 additional credit units in computer science are required, including at least 3 credit units numbered 410 or higher.

Students are required to take MATH 110.3, and 112.3 or 116.3; MATH 264.3 or 266.3; and STATS 242.3 or 245.3. They are advised to take MATH 116.3, 266.3, STATS 241.3 and 242.3.

Students are required to take 3 credit units in business science area: COMM 102.3, 201.3, 202.3, 203.3, 204.3, 205.3, 206.3, 208.3, 301.3; ECON 111.3, 114.3. Students are required to take an additional 3 credit units in the physical sciences, business sciences or engineering. These 3 credit units must be completed in addition to the 18 credit units of natural science courses used in Requirement 1 and may *not* include courses chosen from computer science, mathematics or statistics.

Note: Students should be aware that the Software Engineering Option does not lead to a professional engineering degree certified by professional engineering societies and does not qualify persons to hold the designation "P.Eng."

Students interested in a second degree program in computer science and another subject are advised to consult with both departments before selecting their courses in each year of their program.

POST DEGREE SPECIALIZATION CERTIFICATE

For students who have completed or are completing a University degree in some other discipline, and who wish to complete a computer science major, there is another option to the standard B.Sc. degrees. This option is the Post Degree Specialization Certificate (PDSC) in computer science. To obtain a PDSC in computer science a student must meet all the discipline requirements, as well as the promotion and graduation standards, for the B.Sc. Four-year Major in computer science (see above). In taking courses for the PDSC, a student must complete at least 30 credit units from the College of Arts and Science that are not used for any other degree or certificate.

This program differs from a B.Sc. in that a student need not complete requirements 1 through 5 and requirement 7 for the Bachelor of Science degree. As a result, a student will not necessarily have the breadth of background in Arts and Science that is expected for a B.Sc. However, the student has the breadth provided by their other degree, and has the complete computer science and mathematics background of the four-year computer science degree.

Note that by carefully sequencing the computer science courses and the courses for the other degree, it is sometimes possible to complete both the other degree and the PDSC in computer science in 5 years. In particular, this can be done for many programs in the College of Engineering and for Development of Information Systems majors in the College of Commerce. Contact the Department of Computer Science for more information. Also, students with alternative selections of mathematics, statistics and/or business science courses from their other degree are urged to consult the department and the college regarding possible equivalencies.

PROFESSIONAL INTERNSHIP OPTION

In the Computer Science Professional Internship Option, students complete 16 consecutive months of supervised work experience with a sponsoring employer in addition to the requirements for a computer science program. Normally, the work placement commences after the student has completed three years of the Four-year B.Sc. degree program. The placement lasts from May 1 of one year to August 31 of the next year. Only in exceptional circumstances (e.g., for medical reasons) will a shorter duration work period be permitted. Students should note that an internship is NOT a summer work program.

Benefits to Students: For students who go on internship placements, there are several benefits: (1) acquiring practical training and valuable experience in their prospective career area, adding strength to their

résumé, and thus improving their job prospects upon graduation; (2) getting the "inside track" on full-time employment opportunities with the same company in which the student interned, through established professional contacts; and (3) earning an income to help finance the final year of their university education.

Only a limited number of internship placements will be available in a given year. Eligibility for an internship placement will be decided by the Internship Co-ordinator in the Department of Computer Science, while hiring decisions for internship students are made by the employers.

Students are required to apply by December 1 for admission to an internship in May of the following year. If selected for an internship placement, students must complete CMPT 401, 402, 403, and 404, in addition to the regular requirements of the B.Sc. degree. CMPT 409 is an optional course following return from the internship placement. A student must successfully complete all requirements of the internship option in order to receive the Professional Internship designation on the University transcript.

Interested students are encouraged to contact the Internship Co-ordinator in the Department of Computer Science for further details about internship opportunities.

CREE

For information on related programs see Native Studies. In this section of the *Calendar*; for course descriptions see Cree in the Courses section.

DRAMA

As of 1 September 2001, students in their second, third, or fourth year of the Drama program have the option of completing either the new program or the program as it existed prior to September 2001. All Drama majors beginning their first year in September 2001, or later, will be required to follow the new program with its specific sequencing of courses. Students should also be aware that there are equivalencies between old and new courses and that students with credit for a course under the old curriculum may not take for credit the new curriculum equivalency. The course equivalencies are as follows:

Old	New
100.6	101.3
104.6	104.6
110.3	110.3
113.3	113.3
116.3	116.3
117.3	117.3
121.3	121.3
201.6	203.3 & 303.3
202.6	204.3 & 304.3
210.3	210.3
213.3	213.3
216.3	216.3

217.3	217.3
220.3	220.3
221.3	221.3
302.6	209.3 and 3 c.u. from selected Classics, English, French
314.6	320.3 & 321.3
315.6	316.3 & 317.3
326.3	3 c.u. of Drama electives or 234.2 and 235.2
327.3	330.3
331.6	331.6
341.6	341.6
401.3	401.3
402.3	402.3
415.6	416.3 & 417.3
414.6	420.3 & 421.3
481.6	481.6

B.A. PROGRAMS

Theatre History - concerned with the history, theory, and criticism of theatre.

B.F.A. PROGRAMS

Area 1: Acting - concerned with the practice of acting in various media.

Area 2: Design - concerned with the practice of scenic, lighting, and costume design for the stage.

B.A. PROGRAMS

Major in Drama: General (B.A. Four-year)

Required courses: DRAMA 101.3; 110.3 or 113.3; 116.3, 117.3; 203.3; 204.3; 303.3; 304.3; two of 209.3, 210.3, 213.3, 216.3, 217.3, 401.3, 402.3; an additional 6 credit units from DRAMA 210.3, 213.3, 216.3, 217.3, 220.3, 221.3, 236.3, 316.3, 317.3, 320.3, 321.3, 322.3, 323.3, 330.3, CLASS 226.3, 227.3, ENG 214.3, 221.6, 227.3, 258.3, 280.6, 288.3, FR 345.3, 365.3, 445.3.

Major in Drama: General (B.A. Three-year)

Required courses: DRAMA 101.3; 110.3 or 113.3; 116.3; 203.3; 204.3; 209.3; 210.3 or 213.3; three of 303.3, 304.3, 401.3, 402.3.

Honours in Drama - Theatre History

Required courses: DRAMA 101.3; 110.3 or 113.3; 116.3, 117.3; (210.3 and 213.3) or (216.3 and 217.3); 203.3; 204.3; 209.3; 303.3; 304.3; 401.3; 402.3; ENG 221.6.

Thirty credit units chosen from the areas of Fine Arts, Social Science and/or Humanities relevant to Theatre History, and in consultation with the Drama Department.

Students must also pass an honours exam set by the department. This program is intended both for students who wish to acquire a thorough knowledge of the history of theatre as part of their general education and for those who wish to prepare for work leading to graduate degrees in theatre history, theory and criticism.

DOUBLE HONOURS IN DRAMA AND ANOTHER SUBJECT

Drama may be combined with certain other subjects. Students wishing to combine drama with any other subject must first apply to the Drama Department and the other department concerned.

Required courses: Drama 101.3; 110.3 or 113.3; 116.3; 117.3; 203.3; 204.3; 209.3; 210.3 or 213.3; 303.3; 304.3; 401.3; 402.3.

Students must also pass an honours examination set by the Drama Department.

B.F.A. PROGRAMS

The B.F.A. programs are intended for students who wish to acquire a thorough knowledge of one of the performance-oriented areas of theatre as part of their general education and for those who wish to prepare for graduate schools or conservatories in areas of acting or design.

1. Admission

Students interested in entering the B.F.A. program in Drama should contact the Department of Drama no later than the end of their first year. By that time, students should have completed Drama 101.3, 110.3, 113.3, 116.3, and 117.3. Formal admission to the B.F.A. program should be made on an Application for Honours form available at the Office of the Dean. In order to qualify for admission, students must have obtained a cumulative percentage average of at least 70% overall and a cumulative percentage average of 70% in all drama courses taken.

2. Pre-B.F.A. Program

The recommended Pre-B.F.A. year: Drama 101.3; two of 110.3, 113.3, 210.3, 213.3; 116.3 and 117.3; ENG 110.6 and nine credit units selected from requirements 1 to 5 of Program Type D: Fine Arts.

Note: It is strongly recommended that all potential Drama B.F.A. students take ENG 110.6 and that potential design students also take ARTH 120.3 and 121.3.

3. Academic Requirements

This degree is offered in acting or design. The degree requires four years (120 credit units) in the College of Arts and Science. Because the B.F.A. is a concentrated honours program, the candidate will be required to complete up to 72 credit units in drama and cognate courses, 30 credit units in Program Type D academic requirements and at least 18 elective credit units. The 30 credit units to fulfill the Program Type D academic requirements are to be chosen in consultation with the department. The B.F.A. student is encouraged to use the electives for further work in drama. The student is also expected to attend all Department of Drama critiques, guest lectures, special performances, and workshops that are periodically scheduled. Further, a B.F.A. candidate must maintain a cumulative percentage average of 70% overall and a cumulative percentage average of 70% on all Drama courses.

B.F.A. IN DRAMA - AREA 1: ACTING

Required courses: Drama 101.3, 110.3, 113.3, 116.3, 117.3, 203.3, 204.3, 209.3, 210.3, 213.3, 216.3, 217.3, 234.2, 235.2, 303.3 or 304.3, 316.3, 317.3, 330.3, 334.2,

335.2, 401.3 or 402.3, 416.3, 417.3, 430.3, 434.2, 435.2.

In addition to these courses, the B.F.A. (Acting) student must complete 48 credit units in electives or required academic courses.

Designated Program:

First Year

ENG 110.6; DRAMA 101.3, 116.3, 117.3, 110.3.

Second Year

DRAMA 113.3, 203.3, 209.3, 216.3, 217.3, 234.2, 235.2.

Third Year

DRAMA 204.3, 210.3, 316.3, 317.3, 330.3, 334.2, 335.2.

Fourth Year

DRAMA 213.3, 303.3 or 304.3, 401.3 or 402.3, 416.3, 417.3, 430.3, 434.2, 435.2, 440.3.

B.F.A. IN DRAMA - AREA 2: DESIGN

Required courses: DRAMA 101.3, 110.3, 113.3, 116.3, 117.3, 203.3, 204.3, 210.3, 213.3, 220.3, 221.3, 320.3 and 321.3 or 322.3 and 323.3, 401.3, 402.3, 420.3 and 421.3 or 422.3 and 423.3; ENG 110.6; 12 credit units from ARTH 120.3, 121.3; ART 111.6, 211.6, 112.6, 212.6, 161.3, 216.6.

In addition to these courses, the B.F.A. (Design) student must complete 48 credit units in electives or required academic courses.

Designated Program:

First Year

ENG 110.6; DRAMA 101.3, 110.3, 113.3, 116.3.

Second Year

DRAMA 117.3, 203.3, 210.3, 213.3, 220.3, 221.3; 6 credit units from ARTH 120.3, 121.3; ART 111.6, 211.6, 112.6, 212.6, 161.3, 216.6.

Third Year

DRAMA 204.3, 320.3 and 321.3 or 322.3 and 323.3; 6 credit units from ARTH 120.3, 121.3; ART 111.6, 211.6, 112.6, 212.6, 161.3, 216.6; 6 credit units from Drama electives.

Fourth Year

DRAMA 420.3 and 421.3 or 422.3 and 423.3, 401.3, 402.3; 6 credit units in Drama electives; 6 credit units in Fine Art electives.

COURSES IN OTHER DEPARTMENTS

Students in the B.A. Four-year and B.F.A. programs may credit a limited number of courses from other departments toward their Drama major. Please consult the Drama program descriptions to determine which of the following courses would be allowed for credit toward a Drama program. For details see the Courses section of the *Calendar*.

ARTH 120.3 Introduction to the History of Art I

ARTH 121.3 Introduction to the History of Art II

ART 111.6, 211.6 Painting and Related Work

112.6, 212.6 Drawing and Related Work

ART 161.3, Foundation in Photography I

ART 216.6, Photography

CLASS 226.3 Tragedy

CLASS 227.3 Comedy

ENG 214.3 Medieval Drama

ENG 221.6 Shakespeare

ENG 227.3 English Drama, 1660-1737

ENG 258.3 Canadian Drama in English

ENG 280.6 Modern Drama, Primarily British and American

ENG 288.3 Introduction to Film

FR 345.3 The Theatre in Quebec

FR 365.3 French Theatre in English Translation

FR 445.3 Special Topics in French Canadian Theatre

ECONOMICS

A junior course in calculus is prerequisite for all 300- and 400-level courses. For the junior course in calculus, MATH 110 is recommended, although MATH 101.3 is acceptable.

The requirement of ECON 305 for the honours program can be met by a course in linear algebra e.g., MATH 264 or 266. The requirement of ECON 306 can be met by a course in the calculus of multiple variables e.g., MATH 225. Other mathematics classes may satisfy the equivalency criteria; students should consult with the Head of the Department.

Students who satisfy the ECON 305 and 306 equivalency in mathematics may not subsequently take ECON 305 and 306 for credit. However, students who already have credit for these courses shall not be precluded from taking the mathematics equivalency classes for elective credit and they shall not lose credit for ECON 305 and 306. The ECON 305 and 306 equivalency courses in mathematics may not be used to satisfy:

- the 300- or 400-level requirement for the B.A. Three-year degree,
- requirement (5) for Business Economics, or,
- the requirements for a minor in Economics.

The 6 credit units in mathematics that satisfy the equivalency criteria for ECON 305 and 306 shall be counted as if they were economics courses in order to satisfy the minimum number of economics courses required for any degree in economics and the grades in these mathematics courses will be included in the economics grade average.

MAJOR IN ECONOMICS (B.A. FOUR-YEAR)

ECON 111.3, 114.3, 204.6, 211.3 or 213.3, 214.3; and 18 additional credit units in economics, 12 of which must be at the 300- or 400-level.

Students proposing to major in economics are advised to take ECON 111.3 and 114.3, 6 credit units 100-level POLST and 6 credit

units in mathematics in their first year and ECON 211.3, 214.3 and 204.6 in their second year. It is recommended that students take ECON 111.3 prior to ECON 114.3.

MAJOR IN ECONOMICS (B.A. THREE-YEAR)

ECON 111.3, 114.3, 204.6, 211.3 or 213.3, 214.3; and 12 additional credit units in economics, 6 of which must be at the 300- or 400-level.

HONOURS IN ECONOMICS

ECON 111.3, 114.3, 204.6, 211.3 or 213.3, 214.3; two of 261.3, 263.3, 265.3, 267.3, 280.3, 380.3; 305.3 and 306.3; and 18 additional credit units in economics, 12 of which must be at the 400 level. Students shall, in consultation with the department, include in their honours program additional courses offered by other departments of the college.

Students who expect to enter the Honours Program in Economics are advised to register in ECON 111.3 and 114.3, 6 credit units 100-level POLST, 6 credit units in mathematics and 12 credit units from Requirements 2 to 5 of Program Type B in their first year.

DOUBLE HONOURS PROGRAM

Any students who wish to take a Double Honours Program in Economics and another discipline are invited to contact the Heads of the appropriate departments. Double Honours students are required to take the first 30 credit units of the requirements for the Honours degree in Economics and 6 additional credit units at the 400 level.

Note: Sections of some courses in this department are taught by faculty in the corresponding department of St. Thomas More College. These course sections are designated in the *Registration Guide* by section numbers prefixed with the letter "M."

POST-DEGREE SPECIALIZATION CERTIFICATE IN ECONOMICS

To be eligible for a Post-Degree Specialization Certificate in Economics, students must have successfully completed a university degree in some other discipline. (Students with a Bachelor of Arts would not be eligible for the PDSC because such students would be eligible to complete the Four-year degree or Advanced Certificate in Economics.)

The program requires completion of at least 30 credit units from the College of Arts and Science including completion of the department's discipline requirements, promotion and graduation standards, for a Four-year major in Economics. The program requires completion of ECON 111, 114, 204, 211 or 213, 214, 12 credit units in Economics at the 300- or 400-level, and 6 additional credit units in Economics. A junior course in calculus is prerequisite for all 300-level Economics courses.

MINOR IN ECONOMICS

This minor may be taken in conjunction with a four-year major or Honours program in any other subject area. Required courses are: ECON 111, 114, and 15 additional credit

units in economics. It is recommended that students also take ECON 211 or 213, and 214. Students considering further studies in economics should include these courses in their program.

PROGRAM IN BUSINESS ECONOMICS

The Business Economics Program combines courses in the Department of Economics and the College of Commerce to produce a degree which provides the student with a rigorous background in both economics and commerce, with special emphasis in economics, so as to prepare students for the world of business, finance, and public service. Students trained in our program will be able to apply their specialized knowledge to practical economic problems in their chosen area of employment. Moreover, they will be better equipped to enter the private and public sectors as business economists. In addition, in this program the student becomes familiarized with both economics and commerce from a liberal arts perspective thereby providing the students with a unique, valuable and flexible approach to these areas of study.

Registering in the Program in Business Economics

Students interested in registering in the Business Economics Program MUST apply directly to the Department of Economics.

Major or Honours Degree in Business Economics (B.A. Four-Year)

Whether a student earns an honours or a four-year major degree in the Business Economics Program depends on her or his CPA and whether the student takes the required six credit 400-level credit units for the honours degree. The total program requirement is 66 credit units, including 60 credit units in economics and commerce.

Program Requirements For Business Economics

(1) ECON 111.3, ECON 114.3, ECON 213.3 (Applied Microeconomics) or ECON 211.3, ECON 214.3. ECON 213.3 is recommended.

(2) ECON 204.6 or equivalent.

(3) COMM 208.3 (Introduction to Business Law), COMM 201.3 (Accounting and Business Decision Making) COMM 301.3 (Introduction to Management Accounting for Future Managers) or COMM 302.3 (Introduction to Management Accounting).

(4) Six credit units taken from: COMM 202.3 (Introduction to Organizational Behaviour), COMM 203.3 (Introduction to Finance), COMM 204.3 (Introduction to Marketing), COMM 206.3 (Employment and Industrial Relations), COMM 345.3 (Business and Public Policy).

(5) Twelve additional credit units in economics including a minimum of 6 credit units at the 300- or 400-level.

(6) Six additional credit units in economics at any level (for an honours degree these credit units must be taken at the 400-level).

(7) Nine additional senior credit units in either economics or commerce.

(8) Three credit units in calculus (MATH 110.3 is recommended; MATH 101.3 is acceptable) and 3 credit units in computer science.

Economics total credit units	36
Commerce total credit units	15
Elective credits in economics or commerce	9
Other required courses	6
TOTAL	66

In addition, students must complete the other distribution requirements and electives required for the four-year or honours degrees.

MINOR IN STATISTICS

For students in Economics the following courses would satisfy a minor in Statistics: MATH 110.3, MATH 116.3; MATH 264.3 or MATH 266.3, or ECON 305.3; MATH 225.3 or ECON 306.3; STATS 241.3, STATS 345.3, STATS 348.3, ECON 204.6, ECON 404.6.

ENGLISH

Students beginning an English program in September 2002 will follow the newly-revised format outlined below. Continuing students are encouraged to follow the new program, where possible, and to consult an academic advisor. Appointments may be arranged through the English general office, 320 Arts.

Courses that may be used to fulfill category requirements:

FOUNDATION COURSES

ENG 202.6, 203.6, 204.6

CATEGORY 1: ANGLO-SAXON & MEDIEVAL

ENG 301.3, 306.3, 310.3, 311.3, 313.3, 314.3, 315.3, 401.6, 402.3.

CATEGORY 2: RENAISSANCE

ENG 320.6, 321.6, 324.3, 325.6, 403.6, 404.3, 405.6, 406.3.

CATEGORY 3: 18TH/19TH CENTURY

ENG 327.3, 328.6, 329.3, 331.6, 332.3, 334.6, 354.6, 373.6, 374.6, 409.6, 410.3, 413.6, 414.3, 415.6, 416.3, 418.3.

CATEGORY 4: 20TH CENTURY

ENG 339.6, 340.6, 350.6, 351.6, 352.6, 353.6, 355.6, 356.6, 358.3, 359.3, 375.6, 380.6, 388.3, 443.6, 444.3, 445.6, 446.3, 461.6, 462.3, 463.6, 464.3, 465.6, 466.3, 467.6, 468.3.

MAJOR IN ENGLISH (B.A. FOUR-YEAR)

Minimum requirements: 36 credit units; maximum 60 credit units.

- (1) 6 credit units 100-level English
- (2) ONE of ENG 202.6, 203.6, or 204.6
- (3) A minimum of 12 credit units from categories 1, 2, or 3 (no more than 6 credit units from any single category).
- (4) A minimum of 12 other credit units any senior English.

Note: Although not required, 400-level classes may be taken after consultation with the Department's Administrative Assistant and the seminar instructor.

MAJOR IN ENGLISH (B.A. THREE YEAR)

Minimum requirements: 30 credit units; maximum 42 credit units.

- (1) 6 credit units 100-level English
- (2) 6 credit units from ONE of categories 1, 2, or 3.
- (3) A minimum of 18 further credit units any senior English.

HONOURS IN ENGLISH

- (1) 6 credit units 100-level English
- (2) TWO of Eng 202.6, 203.6, or 204.6.
- (3) 6 credit units chosen from EACH of categories 1 through 4 (24 credit units in all).
- (4) 6 additional credit units chosen from among categories 1 through 3
- (5) 12 credit units any senior English

Note: (a) 12 credit units of the above 60 credit units must be taken at the 400 (Honours) level;

(b) Honours students who contemplate proceeding to graduate studies in the discipline should pay early attention to acquiring skills in a language other than English; (c) Honours students should make an appointment with the Department's Administrative Assistant for academic counselling.

DOUBLE HONOURS

Students who are admitted to a Double Honours program (English and another subject) must be counselled in both departments. Students will fulfill the English portion of the program as follows:

- (1) 6 credit units 100-level English
- (2) ONE of ENG 202.6, 203.6, or 204.6
- (3) 12 credit units from TWO of categories 1, 2, or 3 (6 credit units per category)
- (4) A minimum of 12 credit units any senior English.

Note: (a) 6 credit units of the above 36 credit units must be at the 400 (Honours) level; (b) Students interested in pursuing graduate studies should take the single Honours program to ensure adequate area coverage.

GENERAL NOTES

(a) ENG 110.6 equivalency is 6 credit units junior English, e.g. two of ENG 111.3, 112.3, 113.3, 114.3 or 3 credit units transfer credit with one of 111.3, 112.3, 113.3, 114.3.

Note: ENG 115.3 and/or 116.3, if previously taken, may be used with, or in place of, the 3 credit unit classes listed above.

(b) All students are encouraged to seek academic counselling each year; Honours students in particular should see the Department's Administrative Assistant to ensure entry into permission only 400-level Honours seminars.

COMPLEMENTARY COURSES

Students in English programs may take courses in any department of the College of Arts and Science, but a knowledge of classical and biblical literature is especially useful. Students will also find useful cognate courses in the following departments: Art and Art History, Drama,

History, Languages and Linguistics, Music, Native Studies, Philosophy, Religious Studies and Women's and Gender Studies.

PREREQUISITES
6 credit units of 100-level English is a prerequisite for all 200, 300, & 400-level English courses.

A few senior English courses have alternate prerequisites (see the prerequisites listed under each individual course).

ST. THOMAS MORE COLLEGE

Sections of some courses in this department are taught by faculty in the corresponding department of St. Thomas More College. These course sections are designated in the Registration Guide by section numbers prefixed with the letter "M".

ENVIRONMENTAL EARTH SCIENCES

Administrative Committee: **A. E. Aitken** (Geography), D. J. Pennock (Soil Science, Agriculture), R. Renaut (Geological Sciences).

The Interdisciplinary Program in Environmental Earth Sciences is a joint program of the departments of Geography, Geological Sciences, and Soil Science. It explores the relationships, both modern and ancient, among the solid Earth, the atmosphere, the oceans, and the biosphere; its primary emphasis is on the physical sciences, rather than the biological sciences. An important part of the program is training in methods, including field methods, of investigating and interpreting near-surface environments, and the effects of human activities upon them. The program consists of a core of biology, chemistry, geography, geology, and soil science, plus a choice of specialization in physical geography, geology, or soil science; students must also meet the non-science Requirements C2 to C5 of the College of Arts and Science. Courses shall be selected in consultation with the Program Administrative Committee. On completion of the program, students receive either the B.Sc. Four-year or the B.Sc. Honours.

The course requirements for the program are as follows:

- (1) BIOL 110.6; CHEM 111.3, 221.3, 251.3, 375.3; GEOG 111.3, 210.3, 225.3, 235.3; GEOL 121.3 (or GEOG 112.3), 243.3, 246.3; MATH 110.3, 112.3 (or 116.3); SL SC 313.3, 322.3, 403.3
- (2) SL SC 220.3
- (3) GEOG 233.3 or GEOL 206.3
- (4) BIOL 253.3 or GEOG 270.3 or PL SC 213.3
- (5) Courses to meet Requirements C2 to C5 of the College of Arts and Science.

Note: Students specializing in physical geography who intend to proceed later to an Advanced or Honours Certificate in Geography should take GEOG 113.3 and 114.3 to fulfill requirement C3.

Note: Depending on other courses taken, students may require senior courses to complete C5. A maximum of 54 credit units

in junior courses is allowed in the B.Sc. Four-year or Honours program.

Specialization in Physical Geography (33 credit units): GEOG 222.3, 271.3, 280.3, 321.3, 322.3, 323.3, 390.3; STATS 245.3; plus 9 credit units from: GEOG 325.3, 333.3, 335.3, 336.3, 351.3, 370.3. An entrance requirement for this specialization is Physics 30.

Specialization in Geology (33 credit units): PHYS 111.6; GEOL 224.3, 229.3, 258.3, 308.2, 324.3, 358.3, 384.3, 408.1, 478.3; plus 3 credit units of senior geology courses.

Specialization in Soil Science (33 credit units): PHYS 111.6; SL SC 312.3, 332.3, 343.3, 412.3, 460.3, 470.3; AGRIC 492.3; AP MC 212.3 or MICRO 214.3; and PL SC 314.3 or STATS 245.3.

Note: Students completing a Specialization in the Geology or Geography program should be advised that they may be required to take additional courses in geology in order to meet requirements for professional registration as geoscientists in the Province of Saskatchewan.

Please consult the Office of the Dean for a list of the courses in this program which are used for calculation of the CPA in the major for graduation purposes.

FINE ARTS

For program information see the College of Education section of the *Calendar*, for course descriptions see Fine Arts in the Courses section.

FOOD SCIENCE

Administration of this program is through the Department of Applied Microbiology and Food Science, College of Agriculture; the contact person is N. H. Lowe.

The College of Arts and Science offers a four-year program in Food Science. Students will meet the requirements of Program Type C leading to the B.Sc. Four-year or B.Sc. Honours degree.

Food Science is the discipline in which the biological and physical sciences and engineering are used to study the nature of foods, the causes of their deterioration, and the principles underlying food processing and preservation. This program is designed for students who have a strong interest in the basic sciences and who wish to apply this knowledge to the selection, preservation, packaging, and distribution of safe, nutritious food.

B.S.C. FOUR-YEAR

Required courses: BIOL 110.6; CHEM 112.3, 115.3, 250.3 and one of CHEM 221.3, 231.3, 242.3, 252.3 or 255.3; PHYS 111.6; MATH 110.3, 112.3; NUTR 120.3; BIOCH 200.3, 211.3 and 212.3; CMPT 100.3; 3 credit units in statistics for science students; AP MC 212.3, 425.3; FD SC 345.3, 415.3, 417.3, 452.3, 457.3; MECAG 421.3. Students are encouraged to select additional elective courses from those listed in the Honours program.

B.SC. HONOURS

Required courses are as listed for the B.Sc. Four-year, FD SC 490.0 and an additional 15 credit units selected from AP MC 434.3; CHEM 242.3*; PL SC 420.3; ECON 343.3; FD SC 323.3, 412.3, 491.3; NUTR 220.3. An Honours oral examination is required.

All students are encouraged to select additional electives from the following list: AP MC 435.3; BIOCH 220.3, 310.3, 432.3; BIOL 211.3, 364.3, 472.3; CHEM 221.3*, 375.3; PL SC 461.3.

*If not taken as part of the 'required' courses.

FRENCH

For program information see Department of Languages and Linguistics in this section of the *Calendar*; for course descriptions see French in the Courses section.

GEOGRAPHY

GENERAL INFORMATION

Several courses have changed numbers, as shown below. Students with credit for the course under its former name may not take the revised course for credit.

There are two themes in geography: physical geography and human geography. GEOG 101.3/111.3 and GEOG 102.3/112.3 introduce the student to physical geography while GEOG 113.3 and 114.3 introduce the student to human geography. These courses, together with GEOG 210.3, 215.3 and 222.3 provide geography students with a suitable background for taking senior courses in geography. The B.A. program in geography follows Program Type B. The B.Sc. program in Geography follows Program Type C.

Students who intend to specialize in geography should pursue the program leading to a Four-year or Honours degree. The Three-year major program in geography does not lead to a professional career in geography or entrance to a graduate program in geography.

Note: GEOG 101 and 102 may be used to satisfy Requirement 3 of Program Types A, B, and D. If a Program Type C student wishes to satisfy Requirement 1, they must take GEOG 111 and/or 112.

The Three-year, Four-year, and Honours degrees may be taken in geography and combinations for Double Honours may be pursued, e.g. geography and biology, geography and anthropology and archaeology, geography and history, geography and commerce. Geography has a strong interdisciplinary focus. Interdisciplinary programs with connections to geography include Environmental Earth Sciences*, Land Use and Environmental Studies*, Regional and Urban Development*, and International Studies*. A Co-operative Education program and four minors programs in Geography may also be pursued (see below).

* For details see index section in the *Calendar* under the specific Interdisciplinary program.

MAJOR IN GEOGRAPHY (B.A. FOUR-YEAR)

This degree provides a more intensive exposure to human geography than the three-year degree. The required courses are 6 credit units of geography at the 100-level, GEOG 210.3, 215.3, 222.3, 303.6, 391.3, MATH 101.3 or 110.3. An additional 21 credit units in geography at the senior level are required, including 12 credit units in human geography, 3 credit units in regional geography, 3 credit units in physical geography, and 3 in technical geography.

The department strongly recommends that students take an additional 12 credit units in geography including at least 3 credit units in human geography.

MAJOR IN GEOGRAPHY (B.A. THREE-YEAR)

This degree provides the student with a general background in human geography. Three credit units of geography at the 100-level, GEOG 210.3, 215.3, 222.3 are required courses and the student must take another 18 credit units in geography at the senior level including 9 credit units in human geography, 3 credit units in regional geography, 3 credit units in physical geography, and 3 credit units in technical geography.

MATH 101.3 or 110.3 and GEOG 303.6 are recommended. Also, while the college accepts 30 credit units in geography, the department strongly recommends that geography majors in the three-year program take 9 additional credit units in geography at the 300- or 400-levels.

HONOURS IN GEOGRAPHY (B.A. HONOURS)

The Honours degree in human geography allows a student to specialize in one field of human geography and to conduct a research project in that field. It prepares the student for graduate studies in human geography. The required courses are 6 credit units of geography at the 100-level, GEOG 210.3, 215.3, 222.3, 303.6, 322.3, 391.3, 405.3, 491.3, MATH 101.3 or 110.3. An additional 27 credit units in geography at the senior level are required, including 15 credit units in human geography, 3 credit units in regional geography, 3 credit units in physical geography, 3 in technical geography and another 3 credit units from among the regional, physical or technical geography courses.

MAJOR IN GEOGRAPHY (B.SC. FOUR-YEAR)

This degree provides a more intensive exposure to physical geography than the three-year degree. The required courses are 6 credit units of geography at the 100-level, GEOG 210.3, 215.3, 222.3, 303.6, 390.3, MATH 110.3. An additional 21 credit units in geography at the senior level are required, including 12 credit units in physical geography, 3 credit units in human geography, 3 credit units in regional geography, and 3 credit units in technical geography.

The department strongly recommends that students take MATH 112.3 or 116.3 and an additional 12 credit units in geography including at least 9 credit units in physical

geography and another 3 credit units in geography. Students are required to take 12 credit units in the natural sciences selected from those courses listed under Requirement 1 of Program Type C.

MAJOR IN GEOGRAPHY (B.SC. THREE-YEAR)

This degree provides the student with a general background in physical geography. Three credit units of geography at the 100-level, 210.3, 215.3 and 222.3 are required courses and the student must take another 18 credit units in geography at the senior level, including 9 credit units in physical geography, 3 credit units in human geography, 3 credit units in regional geography, and 3 credit units in technical geography.

MATH 110.3 and GEOG 303.6 are recommended. Also, while the college accepts 30 credit units in geography, the department strongly recommends that geography majors in the three-year program take 9 additional credit units in geography at the 300- or 400-levels.

HONOURS IN GEOGRAPHY (B.SC. HONOURS)

The Honours degree in physical geography allows a student to specialize in one field of physical geography and to conduct a research project in that field. It prepares the student for graduate studies in physical geography. The required courses are 6 credit units of geography at the 100-level; GEOG 210.3, 215.3, 222.3, 303.6, 322.3, 390.3, 405.3, 490.3; MATH 110.3, 112.3 or 116.3 are strongly recommended. An additional 27 credit units in geography at the senior level are required, including 15 credit units in physical geography, 3 credit units in human geography, 3 credit units in regional geography, 3 credit units in technical geography and another 3 credit units from among the regional, human or technical geography courses.

SENIOR COURSE SELECTIONS

Human Geography: 215, 219, 241, 246, 247, 249, 260, 265, 280, 319, 344, 347, 349, 354, 361, 381, 391, 405, 419, 444, 449, 491.

Physical Geography: 210, 225, 233, 235, 270, 271, 325, 333, 335, 336, 351, 370, 390, 405, 425, 433, 435, 470, 490.

Regional Geography: 201, 202, 203, 204, 205, 207, 208.

Technical Geography: 222, 303, 320, 321, 322, 323.

Planning Geography: 343, 346, 446.

Note: All of the courses listed in the physical geography track above may be used to satisfy Requirement 3 of Program Types A, B and D. In addition, all of these courses with the exception of GEOG 101 and 102 may be used to satisfy Requirement 1 of Program Type C.

Students who have received transfer credit for geography courses taken at other universities should consult the department for advice on whether they require other introductory-level geography courses or will be allowed credit for other geography courses.

DOUBLE HONOURS IN GEOGRAPHY

Students may combine studies in Geography with another subject. Students wishing to complete a Double Honours program in Geography and another discipline must consult with both an advisor in the Department of Geography and in the other department concerned.

B.A. Double Honours

Students are required to complete the following courses: MATH 101.3; 6 credit units of 100-level Geography; GEOG 210.3, 215.3, 222.3, 303.6, 391.3; 3 credit units in technical geography; 3 credit units in regional geography; and 9 senior credit units in human geography of which at least 3 credit units must be at the 300- or 400-level.

B.Sc. Double Honours

Students are required to complete the following courses: MATH 110.3; 6 credit units of 100-level Geography; GEOG 210.3, 215.3, 222.3, 303.6, 390.3; 3 credit units in technical geography; 3 credit units in regional geography; and 9 senior credit units in physical geography of which at least 3 credit units must be at the 300- or 400-level. Students are advised to take MATH 112.3 or MATH 116.3 in addition MATH 110.3.

MINORS IN GEOGRAPHY

Four programs in geography can be taken as minors in conjunction with any non-geography major or honours degree program.

Minor in Human Geography

A minor program in Human Geography can be taken in conjunction with any non-geography major or honours degree program. The program is designed to provide students with a basic comprehension of human-environment interactions and the acquisition of analytical skills employed in urban and economic geography and regional development.

Requirements are: one of GEOG 113 or 114; GEOG 210, 215, 222; and 12 senior credit units in geography including 6 credit units of human geography, 3 credit units of physical geography, and 3 credit units of regional geography. At least 3 credit units must be at the 300- or 400-level.

Minor in Physical Geography

A minor program in Physical Geography can be taken in conjunction with any non-geography major or honours degree program. The program is designed to provide students with a basic comprehension of physical phenomena occurring in the natural environment and the acquisition of analytical skills employed in resource management and environmental studies.

Requirements are: One of GEOG 111 or 112; GEOG 210, 215, 222; and 12 senior credit units in geography including 6 credit units of physical geography, 3 credit units of human geography, and 3 credit units of regional geography. At least 3 credit units must be at the 300- or 400- level.

Minor in Urban Planning

A minor program in Urban Planning can be taken in conjunction with any non-geography major or honours degree program. Students completing a degree in geography will be allowed to register in this minor program, provided that no double-counting of credits occurs. Students completing a degree in the Regional and Urban Development (RUD) program may not register in this minor program. This minor program will provide students with a strong and structured understanding of urban planning.

Requirements are: GEOG 113, 246, 247, 249; and 6 credit units selected from GEOG 222, 343, 346, 442.

Minor in Geographic Information Systems

A minor program in Geographic Information Systems (GIS) can be taken in conjunction with any non-geography major or honours degree program. This minor program will provide students with a strong and structured understanding of modern technologies employed in spatial data acquisition and analysis.

Requirements are: GEOG 112 plus an additional 3 credit units of geography at the 100-level; GEOG 222, 320, 321, 322 and 323.

CO-OPERATIVE EDUCATION OPTION IN GEOGRAPHY

This five-year program is available to students in the B.A. or B.Sc. Four-year and Honours programs. After completion of the second year (at least 54 credit units), students spend the first half of their third year and the last half of their fourth year in a paid work placement. Students complete four- or five four-month paid work terms, then return to university for their final year.

Entrance Requirements for Geography majors: Students must hold a cumulative G.P.A. of 70% or higher (or have permission of the department) and must have completed no fewer than 54 and no more than 84 credit units of course work. To qualify for participation in the Co-operative Education Program, students must have successfully completed the following courses; 6 credit units of geography at the 100-level, GEOG 210, 215, 222, MATH 110, 3 credit units of introductory statistics (see Statistics Courses in the Index section of the *Calendar*), and 6 credit units of electives in natural sciences or social sciences (total of 27 credit units).

GEOLOGICAL SCIENCES

GENERAL INFORMATION

Students who intend to specialize in geology or exploration geophysics should pursue a four-year program leading to the B.Sc. Four-year or Honours degree. The four-year programs in geology and geophysics, as described below, meet the minimum requirement for employment in the industry and qualify graduates for registration as Professional Geoscientists in the Province of Saskatchewan, and, if sufficiently high standards are attained, for advancement to post-graduate studies.

MAJOR IN GEOLOGY (B.SC. FOUR-YEAR)

Students in the B.Sc. Four-year program in Geology are required to take GEOL 121.3, 122.3, 224.3, 225.3, 229.3, 243.3, 246.3, 258.3, 308.3, 324.3, 332.3, 343.3, 358.3, and one of 408.3 or 487.3. In addition, students are required to take 21 additional credit units in geosciences at the 300- or 400-level, of which at least 12 credit units are to be selected from: GEOL 325.3, 384.3, 444.3, 445.3, 463.3, and 465.3. Four-year students are also required to take CHEM 112.3 and 115.3; MATH 110.3; either MATH 112.3 or 116.3; and one of PHYS 111.6, 121.6 or 128.3. Students may take up to 72 credit units in geology.

The following would be the most appropriate sequence of courses:

First Year

GEOL 121.3, 122.3; CHEM 112.3 and 115.3; MATH 110.3, 112.3 or 116.3; one of PHYS 111.6, 121.6 or 128.3; and 6 to 9 approved credit units from Program Type C, Requirements 2 to 5.

Second Year

GEOL 224.3, 225.3, 229.3, 243.3, 246.3, and 258.3; BIOL 110.6 or 6 approved credit units from Program Type C, Requirements 2 to 5.

Third Year

GEOL 308.3, 324.3, 325.3, 332.3, 343.3, 358.3, and either GEOL 334.3 and 335.3 or GEOL 384.3; 6 credit units from the area of Natural Sciences; 6 approved credit units from Program Type C, Requirements 2 to 5.

Fourth Year

GEOL 408.3 or 487.3, 444.3, 445.3, 463.3, 465.3, and 3 credit units at the 300- or 400-level; 6 credit units of senior science (students must ensure that they take no more than 72 credit units in geology out of the 120 required for the four-year degree); 6 approved credit units from Program Type C, Requirements 2 to 5.

MAJOR IN GEOLOGY (B.SC. THREE-YEAR)

Students who wish to pursue the B.Sc. Three-year program in Geology, should select GEOL 121.3 and 122.3 and consult the Head of the Department as to the details of their subsequent courses. GEOL 224.3, 225.3, 243.3, 246.3, 258.3, and three of 324.3, 325.3, 332.3, 343.3 or 358.3 would be the most desirable courses for completing the major requirement. Students may elect an additional 12 credit units of courses in geology as part of this degree program. If they do, the two not already taken of GEOL 324.3, 325.3, 332.3 and 343.3 and 6 credit units of senior geology classes listed in the B.Sc. Four-year program would be most appropriate.

Note: The B.Sc. Three-year degree program does NOT qualify students for registration as Professional Geoscientists in the Province of Saskatchewan.

HONOURS IN GEOLOGY

Students who elect and are qualified to pursue the B.Sc. Honours program in Geology are required to take GEOL 121.3, 122.3, 224.3, 225.3, 229.3, 243.3, 246.3, 258.3, 308.3, 324.3, 332.3, 343.3, 358.3, and one of 408.3 or 487.3. In addition,

students are required to take 21 additional credit units in geosciences at the 300- or 400-level, of which at least 12 credit units are to be selected from: GEOL 325.3, 384.3, 444.3, 445.3, 463.3, and 465.3. Students may wish to take GEOL 334.3 and 335.3 in lieu of GEOL 384.3. Honours students are also required to take CHEM 112 and 115.3; MATH 110.3 and either MATH 112.3 or 116.3; and one of PHYS 111.6, PHYS 121.6 or 128.3. BIOL 110.6 is also highly recommended. Students may take up to 72 credit units in geology.

MAJOR IN GEOPHYSICS (B.SC. FOUR-YEAR*)

Students in the B.Sc. Four-year program in geophysics are required to take GEOL 121.3, 122.3, 224.3, 243.3, 246.3, 258.3, 282.3, 334.3, 335.3, 358.3, 481.3, 482.3, 483.3, and 485.6; CHEM 112.3; CMPT 116.3; E P 320.3, 356.3; MATH 110.3, 116.3, 225.3 or 276.3, 226.3 or 238.3, 266.3; PHYS 121.6, 227.3, and one of PHYS 216.3 or E P 225.3. In addition, they are advised to take GEOL 411.3, and MATH 338.6. The following would be the most appropriate sequence of courses:

First Year

GEOL 121.3, 122.3; CHEM 112.3; CMPT 116.3; MATH 110.3, 116.3; PHYS 121.6; 6 approved credit units from Program Type C, Requirements 2 to 5.

Second Year

GEOL 224.3, 282.3; MATH 225.3 or 276.3, 226.3 or 238.3, 266.3; PHYS 227.3; PHYS 216.3 or E P 225.3; 9 approved credit units from Program Type C, Requirements 2 to 5.

Third Year

GEOL 243.3, 246.3, 258.3, 334.3, 335.3, 358.3; E P 320.3, 356.3; MATH 338.6.

Fourth Year

GEOL 411.3, 481.3, 482.3, 483.3, 485.6; 9 approved credit units from Program Type C, Requirements 2 to 5.

HONOURS IN GEOPHYSICS*

Students who elect and are qualified to pursue the B.Sc. Honours program in exploration geophysics must obtain a strong background in geology, mathematics and physics. Students are required to take: GEOL 121.3, 122.3, 224.3, 243.3, 246.3, 258.3, 282.3, 334.3, 335.3, 358.3, 411.3, 481.3, 482.3, 483.3 and 485.6; CHEM 112.3; CMPT 116.3; E P 225.3, 356.3 and 320.3; MATH 110.3, 116.3, 238.3, 266.3, 276.3 and 338.6; PHYS 121.6, 227.3.

* Students who entered a Geophysics program prior to 1990-91 should consult the Department of Geological Sciences to determine the sequence of courses for upper years.

ENVIRONMENTAL EARTH SCIENCES

The departments of Geography, Geological Sciences and Soil Science have developed an interdisciplinary program in Environmental Earth Sciences. Interested students should refer to the Environmental Earth Sciences section of the *Calendar* and contact the Chair of the Administrative Committee.

PALAEOBIOLOGY

The departments of Anthropology and Archaeology, Biology and Geological Sciences have developed an interdisciplinary program in Palaeobiology. Interested students should refer to Palaeobiology in this section of the *Calendar* and contact the Chair of the Administrative Committee.

COURSES IN OTHER DEPARTMENTS AND COLLEGES

For details, see the Courses section of the *Calendar*.

E P 225 Waves, Fields and Optics

E P 320 Discrete Linear Systems and Applied Information Theory

GEOPHYSICS

For program information see the Department of Geological Sciences in this section of the *Calendar*; courses are listed under Geological Sciences in the Courses section.

GERMAN

For program information see the Department of Languages and Linguistics in this section of the *Calendar*; courses are listed under German in the Courses section.

GREEK

For relevant program information see Classics in this section of the *Calendar*; courses are listed under Greek in the Courses section.

HEBREW

For relevant program information see Classics or Religious Studies in this section of the *Calendar*; courses are listed under Hebrew in the Courses section.

HISTORY

What is history? Interest in the past is almost as old as society. The past may be close at hand. We can find it in old photographs of our family and our town. The past may also be so remote that reaching it at all is a challenge. We can study cultures that ceased to exist many centuries ago and have left scant traces. But does the past matter? It matters when we are curious about ourselves and believe that our existence is rooted, not only in genes, but also in a cultural heritage.

History seeks to discover the past through the methodical study of written and oral sources, increasingly in conjunction with artifacts. History is not a science. Our collective past cannot be analyzed in terms of constant laws and processes that invariably produce the same results. Attention to history rarely prevents old mistakes from being made all over again. But history brings us face to face with real people and the things they did and suffered. Studying them from a distance, we can

often understand them better than was possible at the time and better than we can understand developments in our own time.

The principal goals of the history program are to help students:

- develop the ability to read and think critically; ability to write effectively and originally; ability to express ideas and advance arguments orally
- appreciate the variety and diversity of the past
- find meaning in past events which inform the present
- acquire a "common store" of culturally important knowledge
- appreciate history as an evolving discipline which constantly generates new insights
- understand how Canada and the world became as they are today.

Students concentrating in history are advised to study a second language and to choose 200-level courses from more than one area. The areas are: Canada, Europe, Asia, The Americas and Great Britain. Students interested in a career in teaching or government service are advised to take at least 3 credit units in Canadian history.

All history majors must take at least one 6-credit-unit senior course, or two 3-credit-unit senior courses, having a terminal date of 1815 or earlier. History courses meeting this requirement are marked with the symbol *.

For information or brochures on undergraduate programs and courses, on the M.A. and Ph.D. programs in history, and on career opportunities, students can contact the Department of History at 721 Arts Building, (306)966-5792, Fax: (306)966-5852, Email: hist.dept@usask.ca, or visit the web site: www.usask.ca/history.

The History Undergraduate Students' Association (HUSA), is open to all students and offers a program of academic and social events. The History Department publishes *What's Up*, a bi-weekly newsletter, during the regular term; *NowThen*, the department's alumni newsletter, is published once a year. Both newsletters are available on the web.

ST. THOMAS MORE COLLEGE

Sections of some courses are taught by faculty in the Department of History at St. Thomas More College. These course sections are designated in the *Registration Guide* by section numbers prefixed with the letter "M" (for example HIST 120.6, M11).

MAJOR IN HISTORY (B.A. FOUR-YEAR)

The minimum requirements for this program are 6 credit units in history at the 100-level (for example HIST 120.6 or HIST 121.3 and 122.3) and 30 senior credit units, at least 6 credit units of which must be at the 300- or 400- level. An additional 100-level 3 credit units may be used as a junior elective in meeting your degree requirements.

MAJOR IN HISTORY (B.A. THREE-YEAR)

The minimum requirements for this program are 6 credit units in history at the 100-level (for example HIST 120.6 or HIST

121.3 and 122.3) and 24 senior credit units. Students are advised (though not required) to take 6 credit units at the 300-level with a view to strengthening their research, writing, and oral skills. An additional 100-level 3 credit units may be used as a junior elective in meeting your degree requirements.

HONOURS PROGRAMS IN HISTORY

An Honours program offers a strong liberal arts foundation for the teaching and legal professions and for those seeking careers in the public service at the federal, provincial or municipal level. It is a standard preparation for students proceeding to the M.A. and Ph.D. in history or to graduate work in archival and library science, with the intention of entering one of the historical professions.

Honours programs must be planned in consultation with the Department of History. Students in Honours programs in history are strongly advised to take 6 credit units in a non-English language at the intermediate level, for example, CHIN 220.6, CREE 120.6, FR 121.3, 122.3, 125.3, 128.3, GERM 214.3, 217.3, GREEK 202.3, 203.3, LATIN 202.3, 203.3, RUSS 214.3, 217.3, SPAN 214.3, 217.3 or UKR 214.3, 217.3.

HONOURS IN HISTORY

The minimum requirements are:

(1) A total of 54 credit units in history including: 6 credit units at the 100-level, at least 6 credit units at the 300- level, and at least 12 credit units at the 400- level. An additional 100-level 3 credit units may be used as a junior elective in meeting your degree requirements.

(2) At least 18 credit units, approved by the Department, in a cognate subject. Some cognate fields are: Anthropology and Archaeology, Art History, Classics, Drama, Economics, English, a second language (e.g. French, German, Greek, Latin, Russian, Spanish, Ukrainian), Music, Native Studies, Philosophy, Political Studies, Sociology, and Women's and Gender Studies. Other cognate subjects, including the natural and health sciences, may be selected in consultation with the department. Only exceptionally may the cognate program consist of courses in two fields. Eighteen credit units taken to qualify for Recognition in a Language may be used, with the approval of the department, in meeting its cognate requirement.

(3) Participation in the Honours Colloquium.

DOUBLE HONOURS IN HISTORY AND A SECOND SUBJECT

History may be combined in a Double Honours program with another subject such as Anthropology and Archaeology, Art History, Economics, English, French, German, Greek, Latin, Native Studies, Political Studies, Religious Studies, Sociology, Spanish, or Ukrainian. Other combinations may be arranged in consultation with the departments concerned.

The minimum requirements in History are 6 credit units at the 100-level, 30 credit units at the senior level, including at least 6 credit units at the 300-level and at least 6 credit units at the 400-level; participation in the Michael Swan Honours Colloquium. An additional 100-level 3 credit units may be used as a junior elective in meeting your degree requirements.

MINOR IN HISTORY

The Department is currently developing a Minor in History. Students pursuing this option should consult the Department.

CLASSICAL, MEDIAEVAL AND RENAISSANCE STUDIES

The Department of History has developed a Four-Year and Honours program in Classical, Mediaeval and Renaissance Studies. These multi-disciplinary programs are designed to provide students with a richer understanding and deeper appreciation of western civilization between 700 B.C.E. and 1600 C.E., and feature a combination of required courses (survey, language, and periods) and elective fields (History & Archaeology; Language; Literature & Fine Arts; History of Ideas & Classical Tradition). Students interested in these Four-Year or Honours programs, should see the separate entry under Classical, Mediaeval and Renaissance Studies.

COURSES IN OTHER DEPARTMENTS

A maximum of 6 credit units may be chosen from the following list to be counted towards the history major or honours program, provided that these courses are taken with permission of the Head of the Department of History. For details see the Courses section of the *Calendar*.

NATST 200.6 History of the Metis People of Canada

NATST 203.3 History of the Indian in Western Canada

NATST 204.3 History of the Indian in Eastern Canada

NATST 213.3 The American (U.S.) Indian

NATST 301.6 Reading Seminar in Metis History

NATST 302.6 Seminar on Indian History

INTERDISCIPLINARY PROGRAMS

An Interdisciplinary program is an academic program which permits students to study beyond the boundaries of traditional disciplines or disciplinary programs, to explore the relationship among disciplines in depth, and to integrate knowledge gained into a central theme.

Details of the following programs may be found in this section of the *Calendar*: Biotechnology; Classical and Near Eastern Archaeology; Classical, Mediaeval and Renaissance; Environmental Earth Sciences; Food Science; International Studies; Land Use and Environmental Studies; Linguistics; Mathematical Physics; Palaeobiology; Public Administration; Regional and Urban Development.

INTERNATIONAL STUDIES

Administrative Committee: K. Deonandan (Chair, Political Studies), P. Downe (Women's and Gender Studies), W. D. Bishopp (Economics), M. Gertler (Sociology), J. McCannon (History), K. Naqvi (Geography), S. Sharma (Anthropology & Archaeology/Religious Studies), J. Torres (Languages and Linguistics), representative of the International Studies Students' Association.

The Coordinator, Interdisciplinary and International Programs provides administrative support to the Chair, as well as being the initial contact for students requiring assistance. D. Favreau can be reached at (306) 966-4288 or email at intl.studies@usask.ca.

This program is designed to meet the requirements for a B.A. Four-year or Honours degree based on Program Type B in the College of Arts and Science. It will provide a broad introduction to the field of International Studies and a strong grounding in one of the three required streams: Development Studies, International Cooperation and Conflict, and Latin American Studies.

The core departments participating in the International Studies Program are Anthropology and Archaeology/Religious Studies, Economics, Geography, History, Political Studies, and Sociology. Native Studies, Women's and Gender Studies, Community Health and Epidemiology, the College of Law and the Centre for the Study of Cooperatives also contribute courses in the program.

GENERAL REQUIREMENTS

(1) 3 to 6 credit units in 100-level courses (15 to 30 credit unit total) in five of the following six disciplines: Anthropology and Archaeology, Economics, Geography, History, Political Studies, and Sociology. (Number of junior courses required will depend on each department's prerequisites for the senior courses which the student wishes to take.) Students must ensure they have the prerequisites for senior courses they wish to take in each of the streams.

(2) INTNL 200.6 and 400.6

(3) 6 credit units in a modern language other than English: FR 121.3 (or 122.3) and 125.3, or FR 128.3 and 218.3; GERM 114.3 and 117.3, or 214.3 and 217.3; RUSS 114.3 and 117.3, or 214.3 and 217.3; SPAN 114.3 and 117.3, or 214.3 and 217.3; UKR 114.3 and 117.3, or 214.3 and 217.3; or a language approved by the Program Coordinator. It is recommended that students take additional language courses.

(4) At least 6 credit units at the 400-level in the participating disciplines or in INTNL, preferably from the list of recommended courses. If these are from the list of recommended courses, they can be used to meet Requirement (ii) in the appropriate stream.

(5) Courses required by streams.

DEVELOPMENT STUDIES

Courses in the Development Studies Stream have been selected to provide students with a broad, interdisciplinary education focussing on the conditions and problems of less-developed countries comprising the so-called "Third World", the history and theory of economic development around the world, and the geographic and environmental consequences of "development".

The recommended courses in this stream include examinations of specific aspects of third world development in all of the disciplines involved in the program. These include courses in the history of European expansion and colonialism, anthropology and sociology courses dealing with comparative cultural and social change, history, political studies, geography and economics courses which deal with specific regions of the third world and courses which discuss in a broad international context issues of particular importance to development (resource use, the environment, urbanization, health, gender, indigenous issues, and agriculture). Courses of particular relevance from the Departments of Native Studies, Women and Gender Studies and Community Health and Epidemiology are also included.

Students specializing in this stream will also have the opportunity (and will be strongly encouraged) to study aspects of development in field courses and study abroad programs held outside of Canada. These currently include opportunities to study in Central and South America and Africa. With the approval of the Chair of the International Studies Program, such courses may take the place of recommended courses in this stream.

Requirements

(i) 18 credit units in required courses: ECON 270.3 (Economic Development in Non-Industrialized Nations); GEOG 208.3 (World Regional Development); HIST 289.6 (History of Development and Underdevelopment in the Third World); and POLST 246.6 (The Politics of the Third World) or 247.6 (Comparative Politics of Latin America).

(ii) 24 credit units selected from the following list of recommended courses (400 level courses may be used to satisfy requirement 4 above): ANTH 230.3, 231.3, 232.3, 329.3, 337.3, 339.3, 422.3, 425.3; CH & EP 402.3; ECON 221.3, 254.3, 256.3, 258.6, 275.3, 277.3, 354.3, 356.3, 377.3, 414.3; GEOG 205.3, 207.3, 215.3, 241.3; HIST 244.6, 249.6, 271.6, 288.3, 325.3, 326.3, 372.6, 376.3, 448.6, 472.6; NATST 305.6; POLST 246.6, 247.6, 346.3, 362.3, 385.3; SOC 201.3, 204.3, 206.3, 230.3, 237.3, 305.3, 315.3, 344.3, 402.3, 409.3; WGST 202.3, 203.3, 353.3; Guatemala Term Abroad courses (ECON 285.3, POLST 385.3, HIST 385.3, SOC 385.3, ANTH 385.3) or, when appropriate, from POLST 444.6; INTNL 385.3, 388.3, 389.6 (maximum of 6 credit units from INTNL 388 and 389).

INTERNATIONAL COOPERATION AND CONFLICT

This area of concentration provides students with the opportunity to study the

relationships between states, the impulses and avenues used for international cooperation, as well as the reasons for and complexity of conflict in the international arena. Both cooperation and conflict in the international arena, of course, is not necessarily limited to states, and courses in this stream examine these two issues at a variety of levels.

A large number of Political Studies courses are included in the required and recommended lists for this stream, but the stream also includes numerous courses in History and Economics which deal with both cooperation and conflict in the international arena. Courses in Sociology and Anthropology which focus on ethnic relations and conflict are also important elements of the stream.

Requirements

(i) 18 credit units in required courses: POLST 260.6 (International Relations); HIST 229.6 (Europe in the 20th Century); SOC 205.3 (Comparative Race and Ethnic Relations) and ECON 254.3 (The International Trading System).

(ii) 24 credit units selected from the following list of recommended courses (400 level courses may be used to satisfy requirement 4 above): ANTH 235.3, 425.3; ECON 256.3, 354.3, 356.3; GEOG 241.3, 260.3; HIST 228.6, 256.6, 262.3, 281.6, 324.3, 325.3, 326.3, 381.3, 390.3, 471.6, 490.6; LAW 433.3, 457.3, 458.3; POLST 240.6, 241.3, 243.3, 360.6, 362.3, 363.3, 365.6, 367.3, 368.3, 369.3, 442.3, 443.3, 444.6, 460.3, 462.3, 464.6, 465.3, 466.3, 470.3, 471.3; SOC 305.3, 412.3; or, when appropriate, from INTNL 388.3, 389.6 (maximum of 6 credit units from INTNL 388 and 389).

LATIN AMERICAN STUDIES

What most decidedly sets the Latin American Studies stream apart is the Guatemala Term Abroad. This term is a joint program with the University of Guelph and offers students the opportunity to complete as many as 21 credit units in University of Saskatchewan courses while resident in Guatemala. This is a unique opportunity not duplicated in any other university in Canada (except Guelph) which, combined with required and recommended courses at the University of Saskatchewan, contributes to a strong Latin American Studies stream.

Students enrolled in this stream will be required to attend the Guatemala Term Abroad and complete at least 12 credit units (which may include 3 credit units in Spanish) there. They will also be required to complete a course in Modern Latin American History or the Comparative Politics of Latin America. This stream also includes 3 more required credit units in a modern language than the other two thematic streams.

Recommended courses in this stream include particular regional or thematic approaches to Latin American history and topical or thematic courses in all of the disciplines which deal with issues of particular importance for Latin America.

Requirements

(i) Students must attend the Guatemala Term Abroad.

(ii) 18 credit units in required courses: 12 credit units from the Guatemala Term Abroad (may include 3 credit units in Spanish) and 6 credit units in either HIST 271.6 (Modern Latin American History) or POLST 247.6 (Comparative Politics of Latin America) .

(iii) 24 credit units selected from the following list of recommended courses (400 level courses may be used to satisfy requirement 4 above): ANTH 337.3; ECON 270.3, 308.6; GEOG 205.3, 208.3, 215.3; HIST 271.3, 289.6, 372.6, 376.3, 377.3, 379.3, 472.6; INTNL 385.3; NATST 305.6; POLST 247.6; SOC 205.3, 237.3, 305.3, 315.3, 402.3, 409.3; WGST 203.3, additional courses from the Guatemala Term Abroad, or, when appropriate, from POLST 346.3, 348.6, 444.6; INTNL 388.3, 389.6 (maximum of 6 credit units from INTNL 388 and 389). Students must complete at least 9 credit units in Spanish.

LAND USE AND ENVIRONMENTAL STUDIES

Administrative Committee: **M. Rever-DuWors** (Biology); D. Martz and M. Reed (Geography); M. Mehta (Sociology); M. Bowden (Law); J. Bruneau (Economics); Y. Bai (Plant Science); K. Wiebe (Biology).

The Coordinator, Interdisciplinary and International Programs provides administrative support to the Chair, as well as being the initial contact for students requiring assistance. D. Favreau can be reached at (306) 966-4288 or email at diane.favreau@usask.ca.

The College of Arts and Science offers a four-year program in Land Use and Environmental Studies leading to the B.A. or B.Sc. Four-year or B.A. or B.Sc. Honours degree. Students wishing to take this program are required to contact one of the members of the administrative committee for advice in choosing their options. It is possible with the careful choice of options either to pursue a major in Land Use and Environmental Studies, or complete a major in biology, economics, geography or sociology, while fulfilling the requirements of this program.

Note: Students opting for Land Use and Environmental Studies must fulfill the requirements of Program Types B or C. The courses required in (1) and (2) following will fulfill Requirement 6 in Program Types B or C.

The requirements for the program are as follows:

(1) BIOL 110.6, 253.3, CHEM 112.3*, 115.3*; MATH 110.3; ECON 111.3, 114.3, 211.3 and two of ECON 275.3, 277.3, 347.3, AG EC 330.3 (430.3), 432.3; 6 credit units from GEOG 111.3, 112.3, 113.3, 114.3, 210.3, 215.3; GEOG 280.3, LUEST 400.3; and appropriate 3 credit unit senior course in statistics.

(2) 24 credit units chosen from: AP MC 212.3; BIOL 202.3, 263.3, 323.3, 324.3, 350.3, 364.3, 424.3, 451.3, 455.3, 458.3, 470.3, 473.3; CHEM 374.3, 375.3; GEOG 222.3, 225.3, 233.3, 235.3, 270.3, 271.3, 320.3, 321.3, 322.3, 323.3, 325.3, 333.3, 335.3, 351.3, 370.3, 381.3, 480.3; LUEST 401.3; PHIL 226.3; PL SC 301.3, 423.3, 436.3; SL SC 220.3, 313.3, 332.3, 460.3; SOC 110.6, 204.3.

(3) Additional courses** subject to the condition that of the 120 credit units required for the degree not more than 60 may be in one subject and not more than 54 may be junior.***

* Students taking upper-year Chemistry of Biology courses should check prerequisites. Students not planning to take upper-year courses in biology other than BIOL 253 may be permitted to replace CHEM 112 and/or 115 with another approved course in the natural sciences or mathematics.

** These courses may be chosen to complete a major in biology, economics, geography or sociology or to concentrate in Land Use and Environmental Studies.

*** A junior course is a first-year course (numbered in the 100's)

Note: Please consult the Office of the Dean for a list of the courses in this program which are used for the calculation of the CPA in the major for graduation purposes.

CO-OPERATIVE EDUCATION PROGRAM

This five-year program is available to students in the B.A. or B.Sc. Four-year and Honours programs. After completion of the second year (at least 54 credit units), students spend the first half of their third year and the last half of their fourth year in a paid work placement. Students complete four or five four-month paid work terms, then return to university for their final year. For program details, see the program description in the Geography section of the *Calendar*.

Entrance Requirements for LUEST students: Students must hold a cumulative CPA of 70% or higher (or have permission of the Interdisciplinary Chair) and must have completed no fewer than 54 and no more than 84 credit units of course work. To qualify for participation in the Co-operative Education Program, students must have successfully completed the following courses: BIOL 110.6 and 253.3; ECON 111.3 and 114.3; one of ECON 275.3, 277.3 or AG EC 330.3 (430.3), 6 credit units in geography selected from GEOG 111.3, 112.3, 113.3, 114.3, 210.3 or 215.3; GEOG 280.3; MATH 110.3.

LANGUAGES AND LINGUISTICS

The Department of Languages and Linguistics offers instruction in the French, German, Russian, Spanish, and Ukrainian languages; the literatures of these languages, both in the original and in translation; the related civilizations and cultures; and Comparative Literature, and Linguistics.

Most language courses require a computer laboratory fee.

The study of second languages is fundamental to an education in the liberal arts, to citizenship in a multicultural nation,

and to understanding an increasingly close-knit world. It is an important element in the study of linguistics. Knowledge of specific second languages is important in many undergraduate and graduate programs and an advantage or necessity in many careers. The ability to read and communicate in a second language also opens doors, otherwise closed, to gratifying personal and cultural experiences.

Courses and programs abroad. Students are strongly encouraged to complement their programs with study and travel abroad. By obtaining prior permission of the University they may be able to apply credits earned abroad towards a University of Saskatchewan degree. Attention is directed especially to the following Study Abroad programs:

- **FRANCE:**
 Université Marc Bloch; Université Robert Schumann (Strasbourg)
 Third-Year Abroad Program in French Studies (Université de Perpignan, Perpignan)
- **GERMANY:**
 Ernst-Moritz-Arndt Universität Greifswald (Greifswald)
 Philipps-Universität Marburg (Marburg)
 Carl von Ossietzky Universität Oldenburg (Oldenburg)
 Universität Rostock (Rostock);
- **MEXICO:**
 ITESM (Cuernavaca, Guadalajara, Mazatlan, Mexico City, Mexico State, Monterrey, Queretaro)
- **RUSSIA:**
 St. Petersburg Intensive Russian Program (St. Petersburg).

These programs have language requirements. For information on these and other programs, students should contact the Department as early as possible.

Several book prizes and scholarships, ranging in value from \$200.00 to \$2000.00, are available to students studying French, German, Russian, Spanish or Ukrainian, as described in the *Awards Guides*.

PROGRAMS

The department has made extensive revisions to its existing program offerings. New programs have been developed. Following is a summary of the programs available:

French: Four-Year Major; Three-Year Major; Honours; Double Honours; Minor; Recognition

German: Three-Year Major (German/Linguistics; German/Comparative Literature; German Area Studies); Minor; Recognition

Russian: Three-Year Major (Russian/Linguistics; Russian/Comparative Literature; Russian Area Studies); Minor; Recognition

Spanish: Three-Year Major (Spanish; Spanish/Linguistics; Spanish/Comparative Literature; Spanish Area Studies); Minor; Recognition

Ukrainian: Three-Year Major (Ukrainian/Linguistics; Ukrainian/Comparative Literature; Ukrainian Area Studies); Recognition

Linguistics: Four-Year Major; Three-Year Major

Linguistics and Languages: Four-Year Major; Honours

Comparative Literature and Languages: Four-Year Major; Honours

Students currently enrolled in any program in the Department must consult an academic advisor in the Department to determine which courses are required to complete their programs. Students interested in any of the new programs are required to consult an advisor in the Department.

The following descriptions state the minimum requirements. Students may not take more than 60 credit units in a subject in the B.A. Four-year programs or more than 42 credit units in a subject in the Three-year programs.

It is suggested that all students in Program A who are majoring in the Department take in their first two years: LING 111 and 112, LIT 100, and two languages. Linguistics majors in Program B should take LING 111 and 112, PSY 110, and either one language and LIT 100, or, two languages. These courses may be used to satisfy requirements 1, 2, and 4 of either Program A or B.

LING 111 and 112 and LIT 100 will provide an introduction to the two main emphases of the Department's programs: the study of language and the study of literature. Courses in other areas such as Art History, Classics, English, History, and Political Studies help provide the cultural background necessary for studying senior courses in literature and civilization.

Students should be advised that not all courses listed in the *Calendar* are offered every year. Careful planning in consultation with the Department will eliminate problems.

FRENCH

Note: FR 121.3 (or 122.3) and 125.3 now replace FR 120.6; FR 128.3 and 218.3 replace 200.6; FR 212.3 and 215.3 replace FR 202.6; FR 220.3 replaces 210.6, and FR 230.3 replaces 213.6.

Courses taught in English, such as FR 181, 186, 285 and 365, cannot be used as part of a French Recognition, Minor, Major or Honours program. These courses can be used to fulfill the humanities requirement by non-majors, and to fulfill requirement 7 for majors.

Depending on a student's background, any of the following can be initial university courses: FR 103, 106, 121, 122, 128. Two streams lead to advanced study: either 121/122, 125, 212, 215; or 128, 218.

MAJOR IN FRENCH (B.A. FOUR-YEAR)

FR 121.3 (or 122.3), 125.3, 212.3, 215.3, 220.3, 230.3, 6 credit units of literature numbered 300 or above, 12 other credit units, 6 of which must be numbered 300 or above. Total credits: 36.

Or

FR 128.3, 218.3, 220.3, 230.3, 6 credit units of literature numbered 300 or above, 18 other credit units., 6 of which must be numbered 300 or above. Total credits: 36.

MAJOR IN FRENCH (B.A. THREE-YEAR)

FR 121.3 (or 122.3), 125.3, 212.3, 215.3, 220.3, 230.3, 6 credit units of literature at the 300-level, 6 other credit units numbered 200 or above. Total credits: 30.

Or

FR 128.3, 218.3, 220.3, 230.3, 6 credit units of literature at the 300-level, 12 other credit units numbered 200 or above. Total credits: 30.

HONOURS IN FRENCH

FR 121.3 (or 122.3), 125.3; 212.3; 215.3; 220.3; 230.3; 12 credit units of literature numbered 300 or above; 24 other senior credit units, 12 of which must be numbered 300 or above. Total credits: 54.

Or

FR 128.3; 218.3; 220.3; 230.3; 12 credit units of literature numbered 300 or above; 30 other senior credit units, 18 of which must be numbered 300 or above. Total credits: 54.

A suitable stay in a French-speaking milieu or other suitable arrangement is required for students in the Honours Program. The maximum number of credit units allowed in French is 60. Of these, 6 credit units (or 12, if FR 121 [or 122] and 125 have not been taken) can be unspecified transfer credits from francophone universities. Work done at other universities can count towards the major only if there is an exact equivalent in the University of Saskatchewan program. At least two-thirds of the major must be taken at the University of Saskatchewan. Honours students planning on taking advanced grammar courses in Québec should not take FR 312 at the University of Saskatchewan, but use transfer credits instead.

DOUBLE HONOURS

Students wishing to combine French with any other subject must first apply to the Head of the Department of Languages and Linguistics and the Head of the other department concerned.

Required courses in French: FR 121.3 (or 122.3); 125.3; 212.3; 215.3; 220.3; 230.3; 6 credit units of literature numbered 300 or above; 12 other credit units., 6 of which must be numbered 300 or above. Total credits: 36.

Or

FR 128.3; 218.3; 220.3; 230.3; 6 credit units of literature numbered 300 or above; 18 other credit units, 12 of which must be numbered 300 or above. Total credits: 36.

MINOR IN FRENCH

24 credit units of courses (taught in French) numbered 121 or above.

An average of at least 62.5% is required in courses used for the Minor.

RECOGNITION IN FRENCH

18 credit units of courses taught in French.

*Students with advanced standing who begin with FR 128 may receive Recognition after completion of 12 credit units. of courses given in French.

An average of at least 62.5% is required in courses used for Recognition.

ST. THOMAS MORE COLLEGE

Sections of some courses in French are taught by faculty in the corresponding department of St. Thomas More College. These course sections are designated in the *Registration Guide* by section numbers prefixed with the letter "M."

FREQUENCY OF COURSE OFFERINGS

Depending on availability of staff, the department plans to offer the following senior French courses regularly:

Every year: FR 212, 215, 218, 220, 230, 304, 312.

Every second year: FR 251, 252, 258, 271, 272, 303, 314, 317, 318, 319, 320, 334, 343, 345, 350.

Students registered in any of the language courses (103, 106, 121, 122, 125, 212, 215) should plan to attend weekly oral tutorials as scheduled in the *Registration Guide*. A multi-media laboratory is also available on a library basis.

Students who have completed the Immersion program in French to Grade 12, the ACFC program in French, or, the French program in a Designated School, must register in FR 128 and 218. Students having graduated from Grade 12 in an Immersion program will not be allowed to register in FR 121/122 or 125 for credit if it has been fewer than five years since their graduation. Students with credit for French 30 (Grade 12 Core French) must take FR 121/122, 125. Students with an additional background in French beyond the Grade 12 level should consult the Department before registering.

Note: Students taking acceptable immersion French language courses will receive transfer credit for "unspecified" junior or senior French which may be used to satisfy Requirement 7 only.

GERMAN

MAJORS IN GERMAN (B.A. THREE-YEAR)

1. German/Linguistics: 24 credit units of courses taught in German (chosen from Groups One, Two, and Three) plus 15 credit units in Linguistics. Total credits: 39.

2. German/Comparative Literature: 24 credit units of courses taught in German plus 12 credit units in Comparative Literature and two German tutorials accompanying the senior Comparative Literature courses. Total credits: 36.

3. German Area Studies: 24 credit units of courses taught in German plus 18 credit units chosen from Group 4 (cognate courses taught in English). Total credits: 42.

Note: Students taking option 3 must plan their program carefully, ensuring that they

have the necessary prerequisites for upper-year courses that they wish to take in Group Four. The availability of the courses listed is not guaranteed, and students should check course offerings with the departments concerned. Other courses may be counted towards the Major if the content is deemed appropriate by the Department. It is essential that all students consult an academic advisor in the Department of Languages and Linguistics.

Group One: (Courses in language) GERM 114.3, 117.3, 214.3, 217.3, 314.3, 317.3.

Group Two: (Courses in literature taught in German) GERM 231.6, 241.6, 251.6, 361.6, 490.6.

Group Three: (Courses in culture, etc. taught in German) GERM 202.3, 204.3.

Group Four: (Courses taught in English - may be used in German Area Studies Major) GERM 212.6; ENG 285.6; HIST 228.6, 229.6, 339.3; LING 111.3, 112.3; LIT 100.6; PHIL 215.3, 225.6, 314.3; POLST 240.6.

MINOR IN GERMAN

24 credit units of courses taught in the target language (listed in Groups One, Two, and Three).

*Students with advanced standing who start their university studies with GERM 214.3 or 217.3 may count up to 6 credit units of courses listed in Group Four to complete a Minor.

An average of at least 62.5% is required in the courses used for the Minor.

RECOGNITION IN GERMAN

18 credit units of courses given in German (listed in Groups One, Two, and Three).

*Students with advanced standing who do not take the elementary language courses (GERM 114.3, 117.3) may receive Recognition after completion of 12 credit units of courses taught in the target language.

An average of at least 62.5% is required in the courses used for Recognition.

Students registered in any of the language courses (114.3, 117.3, 214.3, 217.3, 314.3, 317.3) should plan to attend weekly oral tutorials as scheduled in the *Registration Guide*. A multi-media laboratory is also available on a library basis.

Students with a background in German (including those who speak the language at home) will not be allowed to take German language courses for credit, until they have contacted the department to arrange for an interview/placement test prior to registering.

RUSSIAN

MAJORS IN RUSSIAN (B.A. THREE-YEAR)

1. Russian/Linguistics: 24 credit units of courses taught in Russian (chosen from Groups One, Two, and Three) plus 15 credit units in Linguistics. Total credits: 39.

2. Russian/Comparative Literature:

24 credit units of courses taught in Russian plus 12 credit units in Comparative Literature and two Russian tutorials accompanying the senior Comparative Literature courses. Total credits: 36.

3. Russian Area Studies: 24 credit units of courses taught in Russian plus 18 credit units chosen from Group 4 (cognate courses taught in English). Total credits: 42.

Note: Students taking option 3 must plan their program carefully, ensuring that they have the necessary prerequisites for upper-year courses that they wish to take in Group Four. The availability of the courses listed is not guaranteed, and students should check course offerings with the departments concerned. Other courses may be counted towards the Major if the content is deemed appropriate by the Department. It is essential that all students consult an academic advisor in the Department of Languages and Linguistics.

Group One: (Courses in language) RUSS 114.3, 117.3, 214.3, 217.3, 314.3, 317.3.

Group Two: (Courses in literature taught in Russian) RUSS 216.3, 226.3, 300.3, 350.3, 405.3.

Group Three: (Courses in culture taught in Russian) - none available.

Group Four: (Courses taught in English - may be used in the Russian Area Studies Major) RUSS 205.3, 210.3, 235.3; ENG 285.6; GEOG 201.3, HIST 220.6, 324.3, 327.3, 328.3, 427.6; LING 111.3, 112.3; LIT 100.6; POLST 243.3; RELST 315.3, 316.3, 326.3.

MINOR IN RUSSIAN

24 credit units of courses given in the target language (listed in Groups One, Two, and Three).

*Students with advanced standing who start their university studies with RUSS 214.3 or 217.3 may count up to 6 credit units of courses listed in Group Four to complete a Minor.

An average of at least 62.5% is required in the courses used for the Minor.

RECOGNITION IN RUSSIAN

18 credit units of courses taught in the target language (listed in Groups One, Two, and Three).

*Students with advanced standing who do not take the elementary language courses (RUSS 114.3, 117.3) may receive Recognition after completion of 12 credit units of courses taught in the target language.

An average of at least 62.5% is required in the courses taken for Recognition.

Students registered in any of the language courses (114.3, 117.3, 214.3, 217.3, 314.3, 317.3) should plan to attend weekly oral tutorials as scheduled in the *Registration Guide*. A multi-media laboratory is also available on a library basis.

Students with a background in Russian (including those who speak the language at home) will not be allowed to take Russian language courses for credit until they have contacted the department to arrange for an interview / placement test prior to registering.

SPANISH

MAJORS IN SPANISH (B.A. THREE-YEAR)

1. Spanish: SPAN 114.3, 117.3, 202.3, 204.3, 214.3, 217.3, 314.3, 317.3, 6 credit units of coursework in Spanish literature at the 300-level or higher.. Total credits: 30.

2. Spanish/Linguistics: 24 credit units taught in Spanish (chosen from Groups One, Two, and Three) plus 15 credit units in Linguistics. Total credits: 39.

3. Spanish/Comparative Literature: 24 credit units of courses taught in Spanish plus 12 credit units in Comparative Literature and two Spanish tutorials accompanying the senior Comparative Literature courses. Total credits: 36.

4. Spanish Area Studies: 24 credit units of courses taught in Spanish plus 18 credit units chosen from Group 4 (cognate courses taught in English). Total credits: 42.

Note: Students taking option 4 must plan their program carefully, ensuring that they have the necessary prerequisites for upper-year courses that they wish to take in Group Four. The availability of the courses listed is not guaranteed, and students should check course offerings with the departments concerned. Other courses may be counted towards the Major if the content is deemed appropriate by the Department. It is essential that all students consult an academic advisor in the Department of Languages and Linguistics.

Group One: (Courses in language) SPAN 114.3, 117.3, 214.3, 217.3, 314.3, 317.3.

Group Two: (Courses in literature taught in Spanish) SPAN 305.3, 306.3, 307.3, 308.3, 403.3, 405.3, 406.3, 408.3, 420.3.

Group Three: (Courses in culture taught in Spanish) SPAN 202.3, 204.3

Group Four: (Courses taught in English - may be used in Spanish Area Studies Major) ANTH 385.3; ECON 285.3; ENG 285.6; GEOG 205.3; HIST 271.6, 372.6, 376.3, 377.3, 385.3; LING 111.3, 112.3; LIT 100.6; POLST 247.6, 385.3; SOC 385.3.

MINOR IN SPANISH

24 credit units of courses taught in the target language (listed in Groups One, Two, and Three).

*Students with advanced standing who start their university studies with SPAN 214.3, 217.3 may count up to 6 credit units of courses listed in Group Four to complete a Minor.

An average of at least 62.5% is required in the courses used for the Minor.

RECOGNITION IN SPANISH

18 credit units of courses taught in the target language (listed in Groups One, Two, and Three).

*Students with advanced standing who do not take the elementary language courses (SPAN 114.3, 117.3) may receive Recognition after completion of 12 credit units of courses taught in the target language.

An average of at least 62.5% is required in the courses taken for Recognition.

Students registered in any of the language courses (114.3, 117.3, 202.3, 204.3, 214.3, 217.3, 314.3, 317.3) should plan to attend weekly oral tutorials as scheduled in the *Registration Guide*. A multi-media laboratory is also available on a library basis.

Students with a background in Spanish (including those who speak the language at home) will not be allowed to take Spanish language courses for credit until they have contacted the department to arrange for an interview/ placement test prior to registering.

UKRAINIAN

MAJORS IN UKRAINIAN (B.A. THREE-YEAR)

1. Ukrainian/Linguistics: 24 credit units of Ukrainian courses (at least 18 credit units from Groups One, Two, and Three; 6 credit units may be from Group Four) plus 15 credit units in Linguistics. Total credits: 39.

2. Ukrainian/Comparative Literature: 24 credit units of Ukrainian courses (at least 18 credit units from Groups One, Two, and Three; 6 credit units may be from Group Four) plus 12 credit units in Comparative Literature and two Ukrainian tutorials accompanying the senior Comparative Literature courses. Total credits: 36.

3. Ukrainian Area Studies: 18 or 24 credit units of Ukrainian courses chosen from Groups One, Two, and Three plus 18 or 24 credit units chosen from Group 4 (cognate courses taught in English). Total credits: 42.

Note: Students taking option 3 must plan their program carefully, ensuring that they have the necessary prerequisites for upper-year courses that they wish to take in Group Four. The availability of the courses listed is not guaranteed, and students should check course offerings with the departments concerned. Other courses may be counted towards the Major if the content is deemed appropriate by the Department. It is essential that all students consult an academic advisor in the Department of Languages and Linguistics.)

Group One: (Courses in language) UKR 114.3, 117.3, 214.3, 217.3, 314.3, 317.3.

Group Two: (Courses in literature taught in Ukrainian) UKR 216.3, 226.3, 300.3, 350.3, 405.3.

Group Three: (Courses in culture taught in Ukrainian) UKR 230.3, 410.3.

Group Four: (Courses taught in English - may be used in the Ukrainian Area Studies Major) UKR 205.3, 211.3, 212.3, 220.3, 310.3; ENG 285.6; HIST 220.6, 324.3; GEOG 201.3; LING 111.3, 112.3; LIT 100.6; POLST 241.3, 343.3; RELST 315.3, 316.3, 326.3.

Note: The Department cannot guarantee that any courses from Groups One, Two or Three will be given in a particular year.

RECOGNITION IN UKRAINIAN

18 credit units of courses given in Ukrainian (listed in Groups One, Two, and Three).

*Students with advanced standing who do not take the elementary language courses (UKR 114.3, 117.3) may receive Recognition after completion of 12 credit units of courses given in the target language.

An average of at least 62.5% is required in the courses taken for Recognition.

Students registered in any of the language courses (114.3, 117.3, 214.3, 217.3, 314.3, 317.3) should plan to attend weekly oral tutorials as scheduled in the *Registration Guide*. A multi-media laboratory is also available on a library basis.

Students with a background in Ukrainian (including those who speak the language at home) will not be allowed to take Ukrainian language courses for credit until they have contacted the department to arrange for an interview/ placement test prior to registering.

LINGUISTICS

Administrative Committee: M. Marino, Chair (Languages and Linguistics), R. Borowsky (Psychology), C. Foley (Anthropology and Archaeology), R. L. Harris (English), S. Lambertus (Anthropology and Archaeology), A. Maingon (Anthropology and Archaeology), T. Mildare (Languages and Linguistics), D. Parkinson (English), A. Taylor (English)

Linguistics aims at providing concepts and methods that will serve to describe all languages and which can be used to contrast languages in regard to sound system (phonology), rules for word formation (morphology) and rules for word combination (syntax).

For further information about the Linguistics program, please contact M. Marino, Chair, Linguistics Program.

MAJORS IN LINGUISTICS

For the **B.A. Four-year**, students are required to take the courses listed under (1) and (2), 6 credit units from (3), and 18 additional credit units: 6 from each of (4), (5) and (6). Total credits: 36.

For the **B.A. Three-year**, students are required to take the courses listed under (1) and (2), together with at least 6 credit units from (3), 6 credit units from (4), and 6 from either (5) or (6). Total credits: 30.

(1) LING 111.3 and 112.3

(2) LING 240.3 and 241.3

(3) ENG 289.3, 292.3, LING 242.3, 243.3

(4) LING 246.3, ENG 290.6, LING 232.3, 233.3

(5) LING 244.3, 342.3, PSY 256.3, ENG 292.3, CLASS 105.3

(6) CHIN 111.6; CREE 101.6; ENG 201.3, 206.3, 210.3, 215.3, 290.6; FR 303.3; GREEK 112.3, 113.3; HEB 111.6; LATIN 112.3, 113.3.

Students should note that it is possible to major in linguistics either in Program Type A or B. Students wishing to major in Linguistics must consult the Administrative Committee.

Please consult the Office of the Dean for a list of the courses in this Program which are used for the calculation of the CPA in the major for graduation purposes.

LINGUISTICS AND LANGUAGES

These are programs combining courses in linguistics with the study of two languages and their related literatures. Any two of the languages taught in the Department may be taken in these programs. This program could lead to graduate work in general linguistics, or in one of the languages studied and the linguistics of that particular language or language family; e.g. French, Spanish and Romance Linguistics; Russian, Ukrainian and Slavic Linguistics, etc. Other graduate-level specializations would also be possible. Linguistics combined with the study of language and literature is an invaluable adjunct to anyone who plans to teach a second language, to the translator, and to the computer specialist, among others. Students considering graduate work should consult the Department as early as possible for assignment to a faculty advisor. Some graduate work can be undertaken here and detailed advice can be provided concerning admission to programs at other universities.

Students beginning this program with no previous study in either language may complete the program in four years. However, only the elementary course in one language (FR 103, 106; GERM 114.3, 117.3; RUSS 114.3, 117.3; SPAN 114.3, 117.3; UKR 14.3, 117.3) will be considered part of the program; the elementary course in the other language will count towards the degree but not towards the Major. Students who have advanced standing in both languages may complete the program with 6 fewer credit units.

MAJOR IN LINGUISTICS AND LANGUAGES (B.A. FOUR-YEAR)

1. Languages: 30 credit units

Language I: 18 credit units.

Elementary:
GERM/RUSS/SPAN/UKR/ 114.3, 117.3;
FR 103.3, 106.3

Intermediate:
GERM/RUSS/SPAN/UKR 214.3, 217.3;
FR 121/2.3, 125.3

Advanced:
GERM/RUSS/SPAN/UKR 314.3, 317.3;
FR 212.3, 215.3

Language II: 12 credit units.

Intermediate:
GERM/RUSS/SPAN/UKR 214.3, 217.3;
FR 121/2.3, 125.3 or 128.3, 218.3

Advanced:
GERM/RUSS/SPAN/UKR 314.3, 317.3;
FR 212.3, 215.3 or 312.3, 314.3

2. Literature: 12 credit units chosen from either or both of Language I and Language II.

3. Linguistics: 24 credit units.

(1) Introductory Course: 6 credit units - LING 111.3, 112.3

(2) Descriptive Linguistics: 12 credit units - LING 240.3, 241.3, 242.3 (or FR 304.3), 243.3

(3) Historical Linguistics: 3 credit units chosen from: LING 232.3, 233.3, 246.3; 3 credit units in English historical linguistics; FR 303.3 (History of French)

(4) Other Linguistics: 3 credit units chosen from: LING 244.3, 342.3; PSY 256.3

Total B.A. Four-Year: 66 credits.

HONOURS IN LINGUISTICS AND LANGUAGES

The program for Honours is the same as that for the Four-Year B.A. with the following additions:

2. Literature: 3 additional credit units. Total: 15 credits.

3. Linguistics: 3 additional credit units chosen from (3) or (4). Total: 27 credits.

4. Honours Project: LING 478. 3.

Total B.A. Honours: 75 credits.

COMPARATIVE LITERATURE AND LANGUAGES

The comparative study of the literatures of western civilization, set in their cultural and historical context, leads to a deeper understanding of cultures different from our own. Students also develop practical skills: competence in two second languages and in expository writing. This program could lead to graduate work in comparative literature or in the literature of either of the two languages of specialization, or to studies in law, journalism, business administration, or library science. Students considering graduate work should take more than the minimum in one of their languages.

Students beginning this program with no previous study in either language may complete the program in four years. However, only the elementary courses in one language (FR 103, 106; GERM 114, 117; RUSS 114, 117; SPAN 114, 117; UKR 114, 117) will be considered part of the program; the elementary course in the other language will count towards the degree but not towards the major. Students who have advanced standing in both languages may

complete the program with 6 fewer credit units.

MAJOR IN COMPARATIVE LITERATURE AND LANGUAGES (B.A. FOUR-YEAR)

1. Languages: 30 credit units.

Language I: 18 credit units.

Elementary
GERM/RUSS/SPAN/UKR/114.3, 117.3,
FR 103.3, 106.3

Intermediate:
GERM/RUSS/SPAN/UKR 214.3, 217.3;
FR 121/2.3, 125.3

Advanced:
GERM/RUSS/SPAN/ UKR 314.3, 317.3;
FR 212.3, 215.3

Language II: 12 credit units.

Intermediate:
GERM/RUSS/SPAN/UKR 214.3, 217.3;
FR 121/2.3, 125.3 or 128.3, 218.3

Advanced:
GERM/RUSS/SPAN/UKR 314.3, 317.3;
FR 212.3, 215.3 or 312.3, 314.3

2. Literature in the target languages:

12 credit units - 6 credit units from Language I and 6 credit units from Language II.

*Students who take Ukrainian as one of their languages may take all 12 credit units of literature in the other language if no courses in Ukrainian literature are available.

3. Comparative Literature: 18 credit units. LIT 100.6 and 12 credit units of senior classes, at least 6 credit units of which must be chosen from LIT 261.3, 262.3, 263.3, 264.3. Up to 6 credit units may be selected from ENG 282.6 (Critical Methods) or ENG 285.6 (19th- and 20th-Century European Literature in Translation).

4. Tutorials: 2 tutorials in each language In senior Comparative Literature courses, students majoring in Comparative Literature will enrol in an accompanying tutorial in which works from the course will be read and discussed in one of the student's languages. Students must register separately in the tutorial, which is listed as a language course. For example, while taking LIT 261.3, a student could register in one of the following tutorials: FR 261.0, GERM 261.0, RUSS 261.0, SPAN 261.0, UKR 261.0.

Total B.A. Four-Year: 60 credits.

HONOURS IN COMPARATIVE LITERATURE AND LANGUAGES

The program for Honours is the same as that for the B.A. Four-Year with the addition of:

Honours Project: LIT 479.6

Total B.A. Honours: 66 credits.

LATIN

For relevant program information see Classics in this section of the *Calendar*; for course descriptions see Latin in the Courses section.

LINGUISTICS

For program information see the Department of Languages and Linguistics in this section of the *Calendar*; for course descriptions see Linguistics in the Courses section.

LITERATURE

For program information see the Department of Languages and Linguistics in this section of the *Calendar*; for course descriptions see Literature in the Courses section.

MATHEMATICAL PHYSICS

Administrative Committee: **J.A. Brooke**, G.W. Patrick, C.E. Soteris, J. Szmigielski (Mathematics & Statistics), R. Dick, C. Rangacharyulu, K. Tanaka, T. G. Steele (Physics & Engineering Physics)

Mathematical Physics is a subject drawing its inspiration from both Mathematics and Physics, its main activity is characterized by those conceptual, mathematical frameworks which describe or explain physical phenomena. Accounting for the essential physical features, one builds theories of physical phenomena, in which those features are expressed in precise mathematical terms. The deductions of the theory are expected to be both mathematically precise and to capture some aspect of physical reality. Mathematical Physics extends to the deepest, most difficult and fascinating realms of both Mathematics and Physics. This program was designed by the Department of Mathematics and Statistics and Physics and Engineering Physics to meet the needs of students interested in this interdisciplinary subject.

Students in this program are required to consult with the representatives (J. A. Brooke, Mathematics and Statistics, and T. Steele, Physics and Engineering Physics) of the Administrative Committee prior to the selection of their second, third and fourth year classes. Mathematical Physics is available only in the B.Sc. Honours program. A student who does not meet Honours standards will have the option of completing a B.Sc. Four-year in Mathematics or in Physics.

Required program:

First year: MATH 110.3, 116.3; PHYS 121.6; 6 credit units to complete requirement 1 in program type C (students are strongly advised to take CMPT 116.3 (or CMPT 111.3 or CMPT 112.3) and CMPT 117.3 (or CMPT 115.3); 12 credit units from requirements 2 to 5 in program type C.

Second year: E P 271.3; MATH 238.3, 266.3, 276.3, 277.3; PHYS 223.3, 227.3, 251.3; STATS 241.3; 3 credit units from requirements 2 to 5 in program type C.

Third year: E P 356.3; MATH 338.6, 366.3, 371.3, 379.3; PHYS 323.3, 341.3, 371.3, 381.3.

Fourth Year: MATH 350.6, 433.3; PHYS 481.3; 9 credit units from the following, including at least 6 credit units of Physics

courses: ASTRO 411.3; E P 421.3; MATH 431.3, 432.3, 434.3, 438.3, 439.3, 485.3; PHYS 402.3, 403.3, 452.3, 463.3, 470.3, 482.3; 9 credit units from requirements 2 to 5 in program type C.

Students are required to attend MATH 401.0 Honours Seminar in third and fourth year and PHYS 490.0 Physics Seminar in fourth year.

MATHEMATICS AND STATISTICS

Separate major and Honours programs in each of Mathematics and Statistics are offered by the department. A Double Honours program in Mathematics and Statistics is also available.

PROGRAMS IN MATHEMATICS AND STATISTICS

Descriptions given indicate minimum program requirements. Students may include as many as 60 credit units of courses in one subject in a Four-year program, or as many as 42 credit units in one subject in a Three-year program. Courses bearing the "MATH" and the "STATS" abbreviations are considered as being in different specializations. The number of credit units of "STATS" courses that may be included in a Mathematics major is limited. Please consult the descriptions below for details.

A section entitled "IMPORTANT NOTES" follows the program listings and should be consulted by all students.

MAJOR IN MATHEMATICS (B.SC. FOUR-YEAR)

Students are required to take at least 36 credit units in Mathematics and Statistics including MATH 110.3 and 116.3, 225.3* or 276.3, 266.3*, STATS 241.3, and additional courses selected from MATH 211.3, 226.3* or 238.3, 258.3, 277.3, STATS 242.3, and 300- and 400-level mathematics and statistics courses such that at least 12 credit units are at the 300- or 400-level and in total, at least 24 credit units are designated MATH. Courses in mathematics and statistics at the 100- and 200-level other than those listed above are not acceptable as part of a major in mathematics. Students are encouraged to include CMPT 111.3 or 112.3, and 115.3 in their programs.

* Students contemplating Honours should replace MATH 225 and 226 with 276 and 238. Students planning on teaching as a career should substitute MATH 358 for 266.

MAJOR IN MATHEMATICS (B.SC. THREE-YEAR)

Students are required to take at least 30 credit units in Mathematics and Statistics including MATH 110.3 and 116.3, 225.3* or 276.3, 266.3*, STATS 241.3, and additional courses selected from MATH 211.3, 226.3* or 238.3, 258.3, 277.3, and STATS 242.3, and 300- and 400-level mathematics and statistics courses such that at least 6 credit units are at the 300- or 400-level and in total, at least 21 credit units are designated MATH. Courses in mathematics and statistics at the 100- and 200-level other than those listed above are not acceptable as part of a major in

mathematics. Students are encouraged to include CMPT 111.3 or 112.3, and 115.3 in their programs.

* Students contemplating Honours should replace MATH 225 and 226 with 276 and 238. Students planning on teaching as a career should substitute MATH 358 for 266.

HONOURS IN MATHEMATICS

(1) At least 54 credit units in Mathematics and Statistics, which shall include: MATH 110.3 and 116.3, 211.3, 238.3, 266.3, 276.3, 360.6, 366.3, 371.3, 379.3, and STATS 241.3. The other 18 credit units shall be selected from any of MATH 277.3 or third and fourth-year courses offered by the Department of Mathematics and Statistics, with the exceptions of MATH 358.6, 363.3, 364.3, which are intended primarily for Education students.

(2) All third and fourth year Honours Mathematics students are required to participate in the Honours seminar, MATH 401.0.

(3) Up to 6 credit units of 300- or 400-level courses offered by other departments and having major mathematical content may be included in the 54 required credit units with permission of the Head of the Department of Mathematics and Statistics.

(4) CMPT 111.3 or 112.3, and 115.3, or their equivalents shall be required and should be taken in first year if possible.

Recommended courses for students wishing to concentrate either in pure mathematics or in applied mathematics are given below.

Honours in Mathematics with a Concentration in Pure Mathematics

A recommended program is:

(1) MATH 110.3 and 116.3, 211.3, 238.3, 266.3, 276.3, 277.3, 360.6, 366.3, 371.3, 379.3, and STATS 241.3.

(2) CMPT 111.3 or 112.3, and 115.3, or their equivalents, taken in the first year if possible.

(3) At least 15 additional credit units selected from 300- and 400-level courses in pure mathematics. Some areas in pure mathematics together with suggested courses are: Topology: MATH 485.3; Analysis: MATH 373.3; Differential Geometry: MATH 350.6.

Note: It is recommended that students in pure mathematics take a course in differential equations, e.g. MATH 431.3 or 439.3.

Honours in Mathematics with a Concentration in Applied Mathematics

A recommended program is:

(1) MATH 110.3 and 116.3, 211.3, 238.3, 266.3, 276.3, 277.3, 338.6, 360.6, 366.3, 371.3, 379.3, 438.3, 439.3, and STATS 241.3.

(2) CMPT 111.3 or 112.3 and 115.3, and PHYS 121.6, or their equivalents, preferably in the first year.

(3) At least 3 other Mathematics credits, chosen according to the interests of the student. Various branches of applied mathematics, together with suggested courses, are:

Classical Applied Mathematics and Mathematical Physics - theoretical physics, fluid mechanics, elasticity, scattering theory, partial differential equations, inverse problems: ASTRO 411.3; E P 225.3, 356.3; MATH 350.6, 373.3, 431.3, 432.3, 433.3, 434.3; PHYS 223.3, 227.3, 251.3, 323.3, 372.3, 381.3, 382.3, 482.3;

Numerical Methods - linear algebra, numerical integration/differentiation, approximation of solutions of ordinary/partial differential equations: MATH 313.3, 314.3.

Discrete Mathematics - mathematical programming, combinatorics, optimization, graph theory, operations research: MATH 327.3, 328.3, CMPT 393.3, 496.3;

Statistics - statistical models, time series, stochastic processes: STATS 341.3, 342.3, 349.3.

DOUBLE HONOURS IN MATHEMATICS AND ANOTHER DISCIPLINE

Forty-two credit units of acceptable Honours courses in mathematics will be required, with the same core of 36 credit units as the Honours program.

MAJOR IN STATISTICS (B.SC. FOUR-YEAR)

Students are required to take at least 36 credit units of courses in Mathematics and Statistics including MATH 110.3, 116.3, 225.3* or 276.3, 266.3*, STATS 241.3, 242.3, 342.3, 344.3, 345.3, 348.3, and one of STATS 341.3, 346.3, 349.3, 442.3 or 443.3; and an additional 3 credit units from: MATH 211.3, 226.3* or 238.3, 258.3, 277.3, and 300- and 400-level courses offered by the department. In addition, students are required to take CMPT 111.3 or 112.3, and 115.3.

Students are encouraged to include other courses in mathematics, statistics, and areas of application in their programs.

*Students contemplating Honours should take MATH 276 rather than 225, and MATH 238 rather than 226. Students planning on teaching as a career may substitute MATH 358 for 266 and the additional 3 required credit units.

HONOURS IN STATISTICS

Students are required to take at least 54 credit units of courses in Mathematics and Statistics including MATH 110.3, 116.3, 238.3, 266.3, 276.3, 371.3, 379.3, 401.0; STATS 241.3, 242.3, 341.3, 342.3, 344.3, 345.3, 346.3, 348.3, 349.3, 442.3, 443.3. In addition, students are required to take CMPT 111.3 or 112.3, and 115.3.

Students are encouraged to include additional courses in mathematics and areas of application in their programs. Students may find the transition to 300-level courses easier to make by including MATH 277.3 in their programs. MATH 366.3 and 373.3 are also recommended, especially for students considering graduate study in statistics.

DOUBLE HONOURS IN STATISTICS AND ANOTHER DISCIPLINE

Students are required to take at least 42 credit units of courses in Mathematics and Statistics including: MATH 110.3, 116.3, 238.3, 266.3, 276.3, 401.0; STATS 241.3, 242.3, 341.3, 342.3, 442.3, 443.3; 6 credit

units from: STATS 344.3, 345.3, 348.3; 3 credit units from: STATS 346.3, 349.3. In addition, students are required to take CMPT 111.3 or 112.3, and 115.3.

Students are encouraged to include other courses in mathematics, statistics, and areas of application in their programs.

Double Honours in Statistics and Mathematics would require 72 credit units of courses in Mathematics and Statistics, 6 credit units in computer science, and 42 credit units in other subjects.

MINOR IN STATISTICS

This minor may be taken in conjunction with a major or Honours program in any other subject, including Mathematics. Students are required to take a: STATS 103.3 or 241.3; a course in linear algebra (such as MATH 264, 266 or 358); an introductory course or courses in statistical methodology (such as STATS 242, 245, 246.; ECON 204, GE 210 or PL SC 314; or STATS 244 and SOC 240 or PSY 233 and 234, or COMM 104 and 207); STATS 344.3, 345.3 and 348.3.

For students majoring in Economics, a Minor in Statistics may be obtained by completing the following courses: MATH 110.3, 116.3; MATH 264.3 or 266.3 (preferred) or ECON 305.3; MATH 225.3 (preferred) or ECON 306.3; ECON 204.6, 404.6; STATS 241.3, 345.3, 348.3.

MATHEMATICAL PHYSICS

The Departments of Mathematics and Statistics and Physics and Engineering Physics have developed an interdisciplinary program in Mathematical Physics. Interested students, particularly students interested in applied mathematics and theoretical physics, should consult the mathematical physics section of the *Calendar*.

IMPORTANT NOTES

Students who have not taken all of the required courses in their second year are encouraged to discuss alternate routes with the Head of the Department.

Students intending to enter the third or fourth year of a program leading to the Honours degree are required to consult with the Head of the Department of Mathematics and Statistics or his designate for approval of an acceptable program.

In exceptional circumstances a student may be prepared to take a graduate mathematics or statistics course in the final year. Students wishing approval to take such a course and to count it towards the Honours requirements, should consult with the department's Honours Committee.

Students who complete an introductory course in statistical methodology that is essentially equivalent to STATS 242.3 may use such a course to satisfy the prerequisite requirements provided by STATS 242.3. However, such students will be required to add an additional approved 3 credit-unit course in statistics, mathematics or an area of application to their programs.

Students who are planning to do graduate study in statistics should follow the Honours programs and supplement it with additional courses in mathematics and

areas of application. An excellent preparation for such graduate study is a Double Honours program in Statistics and Mathematics together with courses in an area of application.

MATH 401.0 must be taken in both the third and fourth years of the Honours and Double Honours programs.

Students who have completed a major or Honours program in mathematics or statistics and who wish to complete an Advanced or Honours Certificate program in the other subject will be required to take at least 18 credit units of additional approved courses from the department's offerings, as well as meeting other college requirements.

Junior Mathematics course credits

Up to 9 credit units may be obtained from the first-year offerings of mathematics and statistics depending on the courses taken and the order in which they are taken.

Students may have credit for MATH 110.3, and 112.3 or 116.3, and STATS 103.3

Students may have credit for MATH 101.3 and STATS 103.3

Students may **not** have credit for both MATH 101.3 and 110.3.

Students may **not** have credit for both MATH 112.3 and 116.3.

Students may have credit for MATH 100.6 and other junior mathematics courses under the following conditions:

- Students with credit for MATH 100.6 may subsequently take **one** of MATH 101.3, 110.3, or STATS 103.3 for credit. If they subsequently take **two** of MATH 101.3, 110.3, 112.3 or 116.3, or STATS 103.3, they will lose half credit for MATH 100.6. If they subsequently take **three** of these courses, they will lose all credit for MATH 100.6.
- Students with credit for **one** of MATH 101.3 or 110.3 or STATS 103.3 may subsequently take MATH 100.6 for half credit only.
- Students with credit for **two** of MATH 101.3, 110.3, 112.3 or 116.3, or STATS 103.3 may not subsequently take MATH 100.6 for credit.

MICROBIOLOGY AND IMMUNOLOGY

The Department of Microbiology and Immunology offers programs leading to the Three-year, Four-year and Honours degree obtained from the College of Arts and Science. The programs provide education in the areas of microbial physiology and pathogenesis, microbial genetics (bacterial, bacteriophage and yeast), virology, tumour biology, immunology and immunopathogenesis. Programs in microbiology include necessary courses for students prepared to enter Graduate studies in biomedical sciences and into health related professional schools such as Medicine, Dentistry, Veterinary Medicine and Pharmacy. Graduates are also prepared for careers in broad aspects of biotechnology and they can find

employment in academic/research institutions and related industries.

Students wishing to obtain a B.Sc. degree in microbiology should take the following:

First year: BIOL 110.6; CHEM 112.3 and 115.3; PHYS 111.6; and 12 credit units towards fulfilling Requirements 2, 3, 4 or 5 of a Program Type C program.

Program changes in microbiology were implemented in the 2000-2001 and 2001-2002 Regular Sessions. A faculty advisor in the Department of Microbiology and Immunology should be consulted before registering for microbiology courses.

MAJOR IN MICROBIOLOGY (B.SC. FOUR-YEAR)

Second Year: MICRO 214.3 or AP MC 212.3, MICRO 216.3; BIOCH 200.3, 211.3, and BIOL 211.3 (considered part of the major); and CHEM 250.3.

Third year: MICRO 387.3, 390.3, 391.3; 3 credit units in statistics (preferably PL SC 314.3).

Third or Fourth year: MICRO 309.3 or 417.3

Fourth year: MICRO 416.3 and 421.3.

To complete the major requirements, an additional 9 credit units must be selected from: ANAT 200.3, 300.3; AP MC 425.3, 430.3, 433.3, 434.3, 435.3, 437.3, 450.3; BIOCH 212.3, 230.3, 310.3, 412.3, 436.3; BIOL 436.3, H SC 208.6; MICRO 308.3, 309.3, 417.3, 423.3, 425.3, 491.6; SL SC 343.3.

CHEM 255.3, Bioorganic Chemistry, is recommended (but not required) for all majors in Microbiology or in Microbiology and Biotechnology. (CHEM 255 will first be offered in 2003.)

MAJOR IN MICROBIOLOGY (B.SC. THREE-YEAR)

The required 200- and 300-level classes are MICRO 214.3 or AP MC 212.3, MICRO 216.3, BIOCH 200.3, (considered part of the major), CHEM 250.3, MICRO 390.3 and 391.3, and 3 credit units in statistics (preferably PL SC 314.3). To complete the major requirements, an additional 9 credit units must be selected from: MICRO 308.3, 309.3, 387.3, *416.3, 417.3, 421.3, 423.3, 425.3; AP MC 425.3, 430.3, 433.3, 434.3, 435.3, 437.3, 450.3; SL SC 343.3.

*Students majoring in microbiology who take MICRO 416 must also take BIOCH 211 previously or concurrently.

CHEM 255.3, Bioorganic Chemistry, is recommended (but not required) for all majors in Microbiology or in Microbiology and Biotechnology. (CHEM 255 will first be offered in 2003.)

HONOURS IN MICROBIOLOGY

Students wishing to enter the Honours Program in Microbiology must apply to the College of Arts and Science.

The required courses to be taken in second, third and fourth year are the same as for microbiology students in the B.Sc. Four-year program.

To complete the major requirements, Microbiology Honours students must select 18 rather than 9 additional credit units from

among the 200-, 300- and 400-level classes listed in the B.Sc. Four-year program. All Microbiology Honours students must register for MICRO 490.0 in fourth year.

Students completing Double Honours in Biochemistry and Microbiology may use BIOCH 311 in place of MICRO 391 in this program.

CHEM 255.3, Bioorganic Chemistry, is recommended (but not required) for all majors in Microbiology or in Microbiology and Biotechnology. (CHEM 255 will first be offered in 2003.)

FOUR-YEAR IN MICROBIOLOGY AND BIOTECHNOLOGY

Program Requirements:

(1) BIOL 110.6; CHEM 112.3, 115.3, PHYS 111.6.

(2) 27 credit units in core Biotechnology courses: ANAT 200.3; BIOCH 200.3, 211.3, 212.3, BIOL 211.3, MICRO 214.3 or AP MC 212.3; MICRO 216.3, 391.3, 416.3.

(3) 12 credit units: MICRO 387.3, 390.3, 417.3, 421.3.

(4) 9 credit units chosen from AP MC 425.3, 430.3, 433.3, 434.3, 435.3, 437.3, 450.3; ANAT 331.3, AN SC 313.3, 470.3; BIOCH 230.3, 310.3, 412.3, 436.3; BIOL 436.3, 316.3, 420.3; H SC 208.6; MICRO 308.3, 309.3, 423.3, 425.3; PL SC 411.3, 416.3; SL SC 343.3. Courses used in (3) [above] cannot be used in (4).

(5) PHIL 236.3 plus 27 credit units such that a) and b) are satisfied as follows:

a) 9 credit units are taken from SOC 292.3, 323.3; AG EC 292.3; COMM 345.3, 346.3; POLST 362.3.

b) 18 additional credit units are taken such that Type C distribution requirements (2)-(5) are satisfied with the recommendation that 6 of these credit units are chosen from the courses listed in a) and/or from HIST 284.3, AGRIC 222.3. [Note that COMM 345.3, 346.3; AGRIC 222.3 cannot be used in Type C distribution requirements.]

(6) CHEM 250.3, PL SC 314.3 or equivalent, 9 credit units Science electives.

(7) 9 credit units of open electives.

HONOURS IN MICROBIOLOGY AND BIOTECHNOLOGY

Program Requirements:

(1) BIOL 110.6; CHEM 112.3, 115.3; PHYS 111.6.

(2) 27 credit units in core Biotechnology courses: ANAT 200.3; BIOCH 200.3, 211.3, 212.3, BIOL 211.3, MICRO 214.3 or AP MC 212.3; MICRO 216.3, 391.3, 416.3.

(3) 12 credit units: MICRO 387.3, 390.3, 417.3, 421.3, 490.0 (Seminar).

(4) 18 credit units chosen from AP MC 425.3, 430.3, 433.3, 434.3, 435.3, 437.3, 450.3; ANAT 331.3, AN SC 313.3, 470.3; BIOCH 230.3, 310.3, 412.3, 436.3; BIOL 436.3, 316.3, 420.3; H SC 208.6; MICRO 308.3, 309.3, 423.3, 425.3; PL SC 411.3, 416.3; SL SC 343.3. Courses used in #3 [above] cannot be used in #4.

- (5) PHIL 236.3 plus 27 credit units such that (a) and (b) are satisfied as follows:
 (a) 9 credit units are taken from SOC 292.3, 323.3; AG EC 292.3; COMM 345.3, 346.3; POLST 362.3.
 (b) 18 additional credit units are taken such that Type C distribution requirements 2-5 are satisfied with the recommendation that 6 of these credit units are chosen from the courses listed in (a) and/or from HIST 284.3, AGRIC 222.3. [Note that COMM 345.3, 346.3; AGRIC 222.3 cannot be used in Type C distribution requirements.]
 (6) CHEM 250.3, PL SC 314.3 or equivalent, 9 credit units Science electives.

Note: Students who do not meet the standard for an Honours degree in the Biotechnology program are eligible to be considered for a four-year degree in Microbiology and Biotechnology.

CHEM 252 or 255.3, Bioorganic Chemistry, is recommended (but not required) for all majors in Microbiology or Microbiology and Biotechnology.

COURSES IN OTHER DEPARTMENTS AND COLLEGES

The following courses may be credited toward a microbiology major and honours program. For details see the Courses section of the *Calendar*.

- ANAT 200.3 Introduction to Cell Biology
- ANAT 300.3 Cell Biology
- AP MC 212.3 Applied Microbiology
- AP MC 425.3 Principles of Food Microbiology
- AP MC 430.3 Microbial Ecology
- AP MC 433.3 Microbial Insecticides
- AP MC 434.3 Industrial Microbiology I
- AP MC 435.3 Microbiological Techniques
- AP MC 437.3 Industrial Microbiology II
- AP MC 450.3 Microbiology of the Rumen
- BIOCH 212.3 Introductory Biochemical Techniques
- BIOCH 230.3 Information Transfer - DNA to Protein
- BIOCH 310.3 Proteins and Enzymes
- BIOCH 412.3 Protein Structure, Function, and Engineering
- BIOCH 436.3 Advanced Molecular Biology
- BIOL 436.3 Animal Parasitology
- H SC 208.6 Human Body Systems
- SL SC 343.3 Soil Microbiology

MUSIC

DEGREES IN MUSIC

The Department of Music offers programs in the College of Arts and Science leading to the Bachelor of Music Degree (B.Mus.) and to the Bachelor of Arts Degree (B.A.) with a music major.

The Department also offers a unique combined degree in accordance with the College of Education, the 5-year Bachelor of Education/Bachelor of Music in Music Education program. The Department also offers programs (elementary level only), or classes which serve students seeking a

Bachelor of Education degree in the music field. (See the College of Education for details on the Bachelor of Education degree.)

Any information required on Graduate Studies can be obtained by contacting the department.

Scholarships and financial aid available to music students are described in the Department of Music section of the *Awards Guides*.

ADMISSION PROCEDURES

All applicants planning to enter the B. Mus. or combined B.Ed./B.Mus.(Mus.Ed.) must first arrange for an Interview, Audition, and a Theory Placement Examination with the Department of Music. Advanced standing in Applied Music, Theory, and History may be granted upon special examinations. All applicants will be expected to demonstrate performance ability in the audition.

For the audition, applicants will be expected to prepare two contrasting music selections. Applicants are encouraged to consult with their music teachers, or consult with the Department of Music to determine suitable repertoire for the audition. Auditions for 2002-2003 are scheduled for March 2, April 20, and May 11, 2002. Auditions for 2003-2004 are March 1, April 19, and May 10, 2003.

For B.Mus Degrees in Performance, History and Literature, and Theory and Composition applicants are required to submit applications to the University Admissions Office (College of Arts & Science) and the Department of Music.

For the combined B.Ed./B.Mus.(Mus.Ed.) applicants are required to submit applications to the University Admissions Office (College of Education) and the Department of Music.

Note: 2002-2003 admissions to the B. Mus. and the 5-year combined B.Ed./B.Mus.(Mus.Ed.) programs will be limited to approximately 30 students.

RECOMMENDED PREPARATION FOR MUSIC PROGRAMS

Private instrument study will be a strong contributor to a successful audition. Therefore this is highly recommended. Students are encouraged to study theory (We recommend the equivalent of Grade II rudiments – Royal Conservatory of Music), history, and music appreciation, in order to be prepared for university-level study.

Band, choir, and orchestra participation is highly recommended as a way of improving performance skills and increasing knowledge of the literature.

Keyboard experience is essential for all music students. Candidates are encouraged to seek keyboard training prior to entering our programs.

GENERAL INFORMATION

The Department of Music at the University of Saskatchewan offers courses for those who desire a major or minor in music as well as elective courses in music.

In addition to the academic courses, the following performing ensembles are open

to all university students. For further information, contact the Department of Music.

Music Theatre: This activity has arisen out of normal class activities in vocal literature, conducting, theatre and applied voice. Short operas, scenes, musicals or excerpts are chosen and students are involved in both the staging and performance. Performances are held at the university and in the community.

Collegium Musicum: This group is open to all singers and instrumentalists interested in the performance of mainly pre-18th-century vocal and instrumental music. The ensemble frequently collaborates with seminars in counterpoint, wind instrument history and literature, and performance practices.

Concert Band: This band is open to all wind and percussion players on campus without audition. This group plays and performs a variety of literature for Concert Band.

Contemporary Music Ensemble: This group, of variable instrumentation is devoted to the performance of significant contemporary works. The ensemble performs several times a year.

Greystone Singers: Open to all students on campus by audition who love singing and enjoy learning a challenging and varied repertoire of sacred and secular choral music.

Jazz Ensemble: Designed to provide insight into the tradition of large ensemble jazz music via the rehearsal and performance of significant repertoire. Ensemble goals are achieved via the study of historically significant styles and key representative composers as well the exploration of leading contemporary jazz styles and composers.

Percussion Ensemble: Membership is determined by audition and is open to all students on campus. This ensemble involves most of the instruments in the percussion family including xylophone, vibraphone and marimba.

University Chorus: This chorus is open to all interested singers both on campus and in the community. The music studied includes masterworks of the choral literature from all eras. The chorus collaborates every year with the Saskatoon Symphony Orchestra in the presentation of large choral works.

Chamber Ensemble with Piano: Open to all music students. This ensemble provides experience in vocal and instrument chamber music with piano. Third- and fourth-year piano students may use this ensemble for credit.

Wind Orchestra: This organization is open to all wind and percussion players on campus by audition. This ensemble performs a challenging repertoire and a large percentage of music written originally for the modern wind ensemble.

Small Ensembles: Brass, Woodwind (including Recorder), Vocal, String and Keyboard Ensembles are open to all students on campus. Although the nature and number of these groups may vary from

year to year, there is always some opportunity for chamber music performances on campus.

CONCERTS AND RECITALS

On the campus many concerts and recitals are presented each year by outstanding artists. A valuable adjunct to any student's education is the opportunity to attend the guest artist series and any departmental ensemble and student recitals. Note that the series involves a fee for tickets. Many significant concerts and recitals are also available in the community.

B.A. PROGRAMS - MAJORS AND HONOURS

Major in Music (B.A. Four-year)
 MUSIC 113.2, 114.2, 117.1, 119.1; 140.3, 141.3, 213.2, 214.2, 217.1, 219.1; 240.3, 241.3; and 12 credit units at the 300 or 400 level in music; language; natural science; social science; humanities or language; art or drama; 54 credit units in electives, 30 of which must be senior. A minimum of 36 and a maximum of 60 music credit units may be taken.

Participation in at least one approved music ensemble each year and attendance at recitals and concerts prescribed by the Department of Music is strongly recommended.

Major in Music (B.A. Three-year)
 MUSIC 113.2, 114.2, 117.1, 119.1; 140.3, 141.3; 213.2, 214.2, 217.1, 219.1; 240.3, 241.3; and a 6 credit unit 300- or 400-level course in Music; language; natural science; social science; humanities or language; art or drama; 30 credit units in electives, 18 of which must be senior. A minimum of 30 and a maximum of 42 music credit units may be taken.

Honours Program in Music

Students planning to enter the Honours program must consult with the Head of the Department. The candidate must demonstrate considerable competence in music theory, music history and performance before being admitted to the program. The Honours program includes MUSIC 113.2, 114.2, 117.1, 119.1, 140.3, 141.3; 213.2, 214.2, 217.1, 219.1, 240.3, 241.3; and 36 credit units in music to be chosen from courses numbered 200 or higher; language; social science; humanities or language; natural science; art or drama; and 30 additional non-music credit units.

Honours students will be expected to attend a non-credit seminar that will be concerned with matters pertinent to honours work in music.

A comprehensive examination in music will be given toward the close of the final year. Candidates will be examined in music theory, music literature and history, performance and analysis.

Several Double Honours Programs are available. Interested students should contact the Head of the Department.

STANDARDS OF ACADEMIC PERFORMANCE

It is the expectation of the Department of Music that students attend all rehearsals,

recitals, and applied lessons as scheduled. Class attendance policy as established by the University is also to be followed.

BACHELOR OF MUSIC PROGRAM

The Bachelor of Music degree (within the College of Arts and Science) is a four-year program leading to the B.Mus. degree in Theory-Composition, History-Literature, or Performance (132 credit units).

The program was revised in 1997, as follows:

Academic Requirements

Students will be required to complete a total of 30 credit units in academic courses, as part of the 132 credit units required in the Bachelor of Music (B.Mus.) program. At least 3 credit units in each of languages, humanities or art or drama, natural sciences, and social sciences, and 18 credit units in undesignated Arts and Science electives. The academic courses may be at a junior or senior level. Remainder of music courses as described below.

The B.Mus. is conferred if the student has obtained an overall minimum Cumulative Percentage Average (CPA) of 60% on the 132 credit units and a CPA of at least 62.5% on all Music courses. For the B.Mus. the CPA requirement is 75% for Distinction, and 80% for Great Distinction on a 132 credit unit program.

History and Literature

First Year (33 credit units)
MUSIC 129.0, 113.2, 114.2, 117.1, 119.1, 140.3, 141.3; Applied Major* (6 credit units); Applied Ensemble* (0 credit units); Arts** (15 credit units).

Second Year (33 credit units)
MUSIC 229.0, 213.2, 214.2, 217.1, 219.1, 240.3, 241.3; Applied Major* (6 credit units); Arts (12 credit units); music elective (3 credit units) or arts electives (3 credit units); Applied Ensemble (0 credit units).

Third Year (33 credit units)
MUSIC 329.0, 346.3, 347.3; 368.3; Music History/Literature electives (15 credit units); Applied Major* (with recital) (6 credit units); Applied Ensemble* (0 credit units); Arts (3 credit units) or a music elective (3 credit units).

Fourth Year (33 credit units)
MUSIC 429.0, 464.3, 465.3; Music History/Literature electives (15 credit units of which 6 must be at the 300 level); music electives (6 credit units); Applied Major* (with recital) (6 credit units).

Theory and Composition

First Year (33 credit units)
MUSIC 129.0, 113.2, 114.2, 117.1, 119.1, 140.3, 141.3; Applied Major* (6 credit units); Applied Ensemble* (0 credit units); Arts (15 credit units).

Second Year (33 credit units)
MUSIC 202.6, 229.0, 213.2, 214.2, 217.1, 219.1, 240.3, 241.3; Applied Major* (6 credit units); Applied Ensemble* (0 credit units); Arts (6 credit units) and a music elective (3 credit units).

Third Year (33 credit units)
MUSIC 302.6 or Music Elective (permission required); MUSIC 329.0, 346.3, 347.3, 367.3; Applied Major* (with recital) (6 credit units); Applied Ensemble* (0 credit units); Arts (9 credit units) and a music elective (3 credit units).

Fourth Year (33 credit units)
MUSIC 402.6 or Music Elective (permission required); MUSIC 429.0; music electives (21 credit units); Applied Major* (with recital) (6 credit units); Applied Ensemble* (0 credit units).

Performance

First Year (33 credit units)
MUSIC 129.0, 113.2, 114.2, 117.1, 119.1, 140.3, 141.3; Applied Major* (6 credit units); Applied Ensemble* (0 credit units); Arts** (15 credit units).

Second Year (33 credit units)
MUSIC 229.0, 213.2, 214.2, 217.1, 219.1, 240.3, 241.3; Applied Major* (6 credit units); Applied Ensemble* (0 credit units); Arts (12 credit units) and a music elective (3 credit units).

Third Year (33 credit units)
MUSIC 329.0; Music Literature (6 credit units); music electives or required courses** (15 credit units); Applied Major* (with recital) (6 credit units); Applied Ensemble* (0 credit units); Arts (3 credit units) and a music elective (3 credit units).

Fourth Year (33 credit units)
MUSIC 429.0; music electives or required courses** (27 credit units); Applied Major* (with recital) (6 credit units); Applied Ensemble* (0 credit units).

* *Applied Music* is the individual or class study of keyboard, strings, voice, winds or percussion. Students taking these courses will follow a prescribed program consisting of technical studies and solo repertoire. All students involved in Applied Music will be required to participate in an approved instrumental or choral ensemble as indicated on the program outlines. Applied Music courses may only be taken for credit by students in the B.Mus. or the combined B.Ed./B.Mus.(Mus.Ed.) programs.

** *Voice Performance Majors* must take MUSIC 311, 312 and 313 in third or fourth year. Careful consultation with the voice program head is required early in the program. *Piano Performance Majors* must take MUSIC 354 in third or fourth year. As this course will only be offered biennially, careful consultation with the piano program head is required early in the program.

Students must contact the Department of Music for specific acceptable courses.

PERFORMANCE REQUIREMENTS

1. For Applied Ensemble
In 2001 the Department of Music revised its Ensemble Policy. Students are advised to check the Department of Music *Student Handbook* or the Department of Music General Office for further information.

2. B.Mus. - All Concentrations
Solo performance during the first year is optional. Performance, however, is mandatory in the second, third and fourth years.

Note: Students who are interested and qualified are encouraged to participate more extensively in performance in each year.

3. B.Mus.- Major in Performance

(a) - 1st Year: performance on a student recital to allow for faculty evaluation and recommendation;

(b) - 2nd Year: extensive performance on student recital to allow for faculty evaluation and recommendation;

(c) - 3rd Year: Junior Recital (25-30 minutes);

(d) - 4th Year: Senior Recital (45-60 minutes).

With permission of the department, students in Theory-Composition and History-Literature may elect to present a Lecture/Recital or Public Paper in lieu of a Recital. See guidelines set by the department.

4. B. Mus. - Theory and Composition

(a) - 3rd Year: Lecture-Recital or Recital of Compositions (approximately 30 minutes);

(b) - 4th Year: Lecture-Recital or Recital of Compositions (approximately 60 minutes).

5. B. Mus. - Music History and Literature

(a) - 3rd Year: Lecture-Recital or Public Paper (approximately 30 minutes);

(b) - 4th Year: Lecture-Recital or Public Paper (approximately 60 minutes).

UNDERGRADUATE COURSES

Alternating of Courses

Students should be advised that not all courses listed in the *Calendar* are offered in any given year. Some courses are given in alternate years. Careful planning in consultation with the Department of Music will eliminate any problems.

Deals with lute and early keyboard tablatures. Includes discussions of problems and transcriptions into modern notation of ancient manuscripts. *Department Head for details.*

A seminar devoted to particular areas of study in music which are not covered by curriculum offerings.

FINE ARTS

The Department of Music also teaches FINAR 100.6 An Introduction to the Fine Arts through the College of Education. For details, see the Courses section of the *Calendar*.

COURSES IN OTHER COLLEGES AND DEPARTMENTS

The following courses are available to students in Bachelor of Music and Bachelor of Arts programs (permission of the department is required for all music education courses taken by Bachelor of Arts students). For details see the Courses section of the *Calendar*.

EDMUS 328.3 Pre-School and Primary Music Methods

EDMUS 331.3 Introduction to School Music
EDMUS 332.3 Advanced Elementary School Music Methods

EDMUS 337.3 Jazz Ensemble Techniques

EDMUS 338.3 Classroom Instruments

EDMUS 340.3 Teaching Music in the Secondary School

EDMUS 342.3 Philosophical Basis of Music Education

EDMUS 428.3 Choral Techniques I

EDMUS 435.6 Instrumental Conducting

EDMUS 438.3 Choral Techniques II

The following courses are available to students in the Bachelor of Music program only:

EDMUS 430.6 Woodwind Techniques

EDMUS 433.3 Brass Techniques*

EDMUS 434.6 String Techniques*

EDMUS 436.3 Percussion Techniques*

NATIVE STUDIES

The Native Studies curriculum aims at a thorough academic examination of all aspects of Indian, Metis and Inuit life and histories. Examining both the Canadian and international contexts, Native Studies seeks to link the processes of the past with contemporary issues. Students will be exposed to a variety of perspectives, world views, sources and intellectual traditions. Students pursuing a Native Studies major will follow Program Type B: Social Sciences.

MAJOR IN NATIVE STUDIES (B.A. FOUR-YEAR)

Required courses: NATST 110.6, 209.3, 309.6, and 21 additional credit units in Native Studies at the senior level, of which 6 credit units must be at the 400 level. Up to 60 credit units in Native Studies may be chosen.

MAJOR IN NATIVE STUDIES (B.A. THREE-YEAR)

Required courses: NATST 110.6, 209.3, and an additional 21 credit units in Native Studies at the senior level, of which 6 credit units must be at the 300 or 400 level.

HONOURS IN NATIVE STUDIES

Required courses: NATST 110.6, 209.3, 309.6 and an additional 33 credit units in Native Studies at the senior level, of which at least 6 credit units must be at the 300 level, and 12 credit units must be at the 400 level. Up to 60 credit units in Native Studies may be taken.

DOUBLE HONOURS

Students wishing to do Double Honours in Native Studies are required to consult with the department head.

Required Courses: NATST 110.6, 209.3, 309.6, and an additional 21 credit units in Native Studies at the senior level, of which at least 6 credit units must be at the 400 level.

PALAEOBIOLOGY

Administrative Committee: *J. F. Basinger* (Geological Sciences), *A. Aitken* (Geography), *A. Davis* (Biology), *B. R. Pratt* (Geological Sciences), *E. G. Walker* (Anthropology and Archaeology).

Palaeobiology is the description of the organisms and the sediments in which they are found as well as the distribution and functional analysis of fossil animals and plants. This includes the definition of the spatial and temporal occurrence of these organisms and the reconstruction of their paths of evolution. Such evolutionary relationships are then tied to environmental

data to reconstruct the way of life of fossil species. The palaeobiology program was designed by the Departments of Geological Sciences, Biology, and Anthropology and Archaeology to meet the needs of students interested in this interdisciplinary subject matter. The program is designed to offer guidance, yet allows students some flexibility within their special area of interest.

The College of Arts and Science offers a four-year program leading to the B.Sc. Four-Year or B.Sc Honours degree in Palaeobiology. Courses shall be selected in consultation with the Program Administrative Committee.

The course requirements for the program are as follows:

- (1) ANTH 111.3 and ARCH 112.3
- (2) BIOL 110.6, 203.6, 205.3
- (3) CHEM 112.3 and one of 115.3 or 250.3
- (4) GEOL 121.3, 122.3, 243.3, 246.3
- (5) 30 credit units selected from categories A, B, C, and D below, such that a minimum of 6 credit units are completed from each of categories A, B, and C, and at least 12 credit units are at the 400-level:

Category A: ARCH 250.3, 251.3, 270.3, 361.3, 375.3, 458.6, 459.3, 461.3, 462.3, 470.3, 471.3

Category B: BIOL 204.3, 211.3, 253.3, 263.3, 323.3, 324.3, 325.3, 326.3, 361.3, 367.3, 368.3, 401.3, 422.3, 451.3, 455.3, 458.3, 474.3

Category C: GEOL 332.3, 343.3, 433.3, 435.3, 437.3, 439.3, 445.3, 446.3, PBIO 250.3

Category D: PBIO 488.3, 489.6.

- (6) 51 credit units in additional courses including courses to complete the College of Arts and Science requirements C1 to C5. Of the 120 credit units required for the degree not more than 60 credit units may be in any one subject and not more than 54 may be junior credit courses.

Note: Graduation in the program is based on the overall average only.

PHILOSOPHY

The two philosophy departments in the university, the Department in the College of Arts and Science and the Department in St. Thomas More College offer a single degree in philosophy, with each providing a somewhat different program. Students should seek advisement from the department of their major.

COLLEGE OF ARTS AND SCIENCE

CATEGORIES

A- History: PHIL 208.3, 209.3, 210.3, 211.3, 213.3, 214.3, 215.3, 219.3, 312.3, 313.3, 314.3, 317.3, 319.3, 411.6

B- Problems: PHIL 251.3, 281.3, 292.3, 294.3, 296.3, 326.3, 343.3, 381.3, 396.6, 410.6, 418.3, 446.3, 455.3, 481.3

C- Value: PHIL 224.3, 226.3, 230.3, 231.3, 233.3, 234.3, 235.3, 236.3, 262.3, 271.3, 333.3

Note: PHIL 320 and 420 may count as either *B* or *C* courses, depending on the topic of the course.

MAJOR IN PHILOSOPHY (B.A. FOUR-YEAR)

At least 36 credit units in philosophy, including 6 credit units from each of categories *A*, *B*, and *C*. At least 9 credit units must be at the 300 level or higher. Students must take PHIL 241.3, or CMPT 260 and are encouraged to take PHIL 420.3 in their fourth year.

Note: Students are encouraged to take PHIL 241 or CMPT 260 in their second year; although it is not a prerequisite to senior courses in philosophy, the knowledge of logic will be of value in many upper-year philosophy courses.

MAJOR IN PHILOSOPHY (B.A. THREE-YEAR)

At least 30 credit units in philosophy including 6 credit units from each of categories *A*, *B*, and *C*. At least 6 credit units must be at the 300 level or higher. Students must take PHIL 241.3 or CMPT 260.

HONOURS IN PHILOSOPHY

Students admitted to the Honours program will take from 48 to 60 credit units in philosophy. Students are required to take PHIL 243.3 and 420.3 and at least 9 credit units from each of categories *A*, *B*, and *C*. At least 12 credit units must be at the 300-level or higher. Students considering graduate work in philosophy are strongly urged to plan their programs in consultation with their advisors.

DOUBLE HONOURS PROGRAMS

Various Double Honours programs involving philosophy and another subject are permissible. The student should contact both departments concerned. Students will take at least 36 credit units in philosophy meeting the distribution requirements of the Four-year program with the addition that PHIL 420.3 is required. The courses chosen must also be acceptable to the other department in which the student is doing honours work.

MINOR IN PHILOSOPHY

A minor program in Philosophy, consisting of 24 credit units of Philosophy, can be taken in conjunction with any major or honours program in another subject area. A Minor in Philosophy represents a basic level of engagement with and competence in abstract and critical reasoning that is regarded as a useful background for other academic or professional programs.

ST. THOMAS MORE COLLEGE

MAJOR IN PHILOSOPHY (B.A. FOUR-YEAR)

Thirty-six credit units in philosophy including at least 30 in senior courses with at least 9 credit units at the 300 level or higher. Students are required to take PHIL 240.3 and are encouraged to take PHIL 404.3 in their fourth year.

MAJOR IN PHILOSOPHY (B.A. THREE-YEAR)

Thirty credit units in philosophy including at least 24 in senior courses, with at least 6 credit units at the 300 level or higher. Students are recommended to take PHIL 240.3.

HONOURS IN PHILOSOPHY

Students admitted to an Honours Program in Philosophy will take from 48 to 60 credit units in philosophy. Students are required to take PHIL 240.3 and 404.3. At least 12 credit units must be at the 300 level or higher. Students considering honours must consult the Head of the Department in St. Thomas More College as soon as possible about these courses.

The following progression of courses is recommended as part of the required credit units in philosophy:

First Year: PHIL 110.6, or PHIL 120.3 and 133.3

Second Year: PHIL 204.3, 208.3, 209.3, 210.3, 211.3, 230.3, 234.3, 240.3, 296.3

Third Year: PHIL 213.3, 214.3, 215.3, 219.3, 231.3, 294.3

Fourth Year: PHIL 396.6, 404.3, 412.3, 413.3.

DOUBLE HONOURS PROGRAMS

Various double honours programs involving philosophy and another subject are permissible. The student should consult the heads of the departments concerned. A student in St. Thomas More College will take PHIL 110.6 and 30 other credit units in philosophy, including 12 credit units at the 300-level or higher, chosen in consultation with the Head of the Department in this College. PHIL 240.3 and 404.3 are required. The courses chosen must also be acceptable to the other department in which the student is going to do honours work. The student must also take 36 credit units in the other discipline.

PHILOSOPHY COURSE EQUIVALENTS

The MPHIL course designation has been deleted. Students with credit for the following MPHIL courses may not take for credit the PHIL equivalents listed below:

MPHIL	Equates To
105	PHIL 105
110	PHIL 110
202	PHIL 202
203	PHIL 203
204	PHIL 304
218	PHIL 215
219	PHIL 219
222	PHIL 225
290	PHIL 230
291	PHIL 231
292	PHIL 234
293	PHIL 240
294	PHIL 294
296	PHIL 296
297	PHIL 210
298	PHIL 211
304	PHIL 404
396	PHIL 396
410	PHIL 410
420	PHIL 411

Note: PHIL 110, 120, 133 and 140 have no prerequisites and are suitable for first year students.

PHIL 202, 203, 224, 230, 231, 233, 234, 235, 236, 240, 294 may be taken by students who have had no previous courses in philosophy but who have completed 24 credit units at the University. In addition PHIL 233, 251, 262, 271 and 296 may be taken by students who do not have 6 credit units in philosophy, though these courses all have prerequisites.

A bulletin listing all courses offered in the current academic year is available at the department office, Room 619 Arts Building, and the department office in St. Thomas More College.

Course sections designated in the Registration Guide by section numbers prefixed with the letter "M" are taught by faculty of St. Thomas More College.

PHYSICS AND ENGINEERING PHYSICS

What is physics? The word physics derives from a Greek word meaning "knowledge of nature". Since many physical phenomena are easily observed to be repeatable, there must be fundamental rules which dictate the behaviour of the natural world. The search for these fundamental rules, or laws, is the objective of physics.

The laws of physics apply to a wide variety of natural phenomena, from the study of subatomic particles to the study of astronomical objects many times larger than the Sun. The heat generated by a burning match and the heat generated by a rocket engine are governed by the same physical principles. The laws which enable astronomers to infer that distant galaxies are receding from us at extremely high speed are also used by the police to catch speeding cars using radar. Physics applies to all of these situations because it focuses on the fundamental laws of nature.

The strength of physics lies in the fact that these laws must be verified by rigorous, quantitative experimentation. A physical theory is only accepted as valid if it successfully predicts and explains reproducible observations. Since experimentation is at the heart of the subject, it is also an important component of any undergraduate program in physics.

In order to describe repeatable relationships between physical quantities, the laws of physics are expressed in mathematical form. Mathematics is therefore another important component of any undergraduate physics program. Mathematics B30 and C30 are prerequisites for all of our first-year courses (except ASTRO 101), and several mathematics courses are required up to the 300 level.

Three degree programs in Physics are currently offered: B.Sc. Three-year, B.Sc. Four-year, and B.Sc Honours. The first two years are identical for all three programs. Students interested in applied physics should also consider the Engineering Physics program described in the College of Engineering section of the Calendar.

For further information on physics courses or programs, on graduate programs in physics leading to the M.Sc. or Ph.D. degrees, or on career opportunities, students should contact the Department of Physics and Engineering Physics through its web site at <http://physics.usask.ca>.

MAJOR IN PHYSICS (B.SC. FOUR-YEAR)

Students in the Four-year program are required to take 120 credit units as follows: PHYS 121.6 (or PHYS 111.6 with a grade of 70% or better and permission of the Department), 223.3, 227.3, 251.3, 304.3, 323.3, 341.3, 371.3, 381.3, 490.0. CMPT 116.3. E P 271.3, 356.3. MATH 110.3; 116.3 (or MATH 112.3 with a grade of 80% or better); one of 223.3, 225.3 or 276.3; 238.3; 266.3; 338.6. 12 credit units of Physics/Astronomy courses from List 1; and 51 credit units of electives chosen to satisfy Requirements 1–5 and 7 of Program Type C.

List 1: PHYS 322.3, 323.3, 402.3, 403.3, 404.3, 452.3, 463.3, 470.3, 481.3, 482.3; ASTRO 212.3, 310.3, 312.3, 320.3, 411.3; E P 311.3, 317.3, 321.3, 324.3, 413.3, 414.3, 421.3, 431.3.

The department recommends the following course sequence:

First Year: PHYS 121; MATH 110 and 116; 18 additional credit units.

Second Year: PHYS 223, 227, 251; CMPT 116; E P 271; MATH 238, 266, 276; 6 additional credit units.

Third Year: PHYS 304, 341, 371, 381; E P 356; MATH 338; 9 additional credit units.

Fourth Year: PHYS 490; 12 credit units of Physics/Astronomy courses from List 1; 18 additional credit units.

Note: Senior Astronomy courses may be used to fulfill Requirement 7 of Program Type C.

MAJOR IN PHYSICS (B.SC. THREE-YEAR)

Students in the Three-year program are required to take 90 credit units as follows: PHYS 121.6 (or PHYS 111.6 with a grade of 70% or better and permission of the Department), 223.3, 227.3, 251.3. CMPT 116.3. E P 271.3. MATH 110.3, 116.3 (or MATH 112.3 with a grade of 80% or better), one of 223.3, 225.3 or 276.3; 238.3, 266.3. 12 credit units of Physics/Astronomy courses from List 2; and 42 credit units of electives chosen to fulfill Requirements 1–5 and 7 of Program Type C.

List 2: PHYS 304.3, 322.3, 323.3, 341.3, 371.3, 381.3; ASTRO 212.3, 310.3, 312.3, 320.3; E P 225.3, 311.3, 317.3, 321.3, 324.3, 356.3, 421.3.

Students may find it advisable to take MATH 338 in their third year since it is a corequisite for several Physics and Engineering Physics courses.

The department recommends the following course sequence:

First Year: PHYS 121; MATH 110 and 116; 18 additional credit units.

Second Year: PHYS 223, 227, 251; CMPT 116; E P 271; MATH 238, 266, 276; 6 additional credit units.

Third Year: 12 credit units of Physics/Astronomy courses from List 2; 18 additional credit units.

HONOURS IN PHYSICS

Students in the Honours program are required to take 120 credit units as follows: PHYS 121.6 (or PHYS 111.6 with a grade of 70% or better and permission of the Department), 223.3, 227.3, 251.3, 304.3, 323.3, 341.3, 371.3, 381.3, 402.3, 463.3, 481.3, 490.0. CMPT 116.3. E P 271.3, 311.3, 356.3. MATH 110.3, 116.3 (or MATH 112.3 with a grade of 80% or better), one of 223.3, 225.3 or 276.3; 238.3; 266.3; 338.6; 379.3. 12 credit units of Physics/Astronomy courses from List 3; and 33 credit units of electives chosen to satisfy Requirements 1–5 and 7 of Program Type C.

List 3: PHYS 322.3, 403.3, 404.3, 452.3, 470.3, 482.3, 491.3; ASTRO 310.2, 312.3, 320.3, 411.3; E P 317.3, 321.3, 324.3, 413.3, 414.3, 421.3, 431.3.

The department recommends the following course sequence:

First Year: PHYS 121; MATH 110 and 116; 18 additional credit units.

Second Year: PHYS 223, 227, 251; CMPT 116; E P 271; MATH 238, 266, 276; 6 additional credit units.

Third Year: PHYS 304, 323, 341, 371, 381; E P 311, 356; MATH 338, 379.

Fourth Year: PHYS 402, 463, 481, 490; 12 credit units from List 3; 9 additional credit units.

Note: Senior Astronomy courses may be used to fulfill Requirement 7 of Program Type C.

A student entering the Honours Program in Physics must consult the Head of the Department on selection of courses not later than the beginning of the third year. In fourth year, these students must take part in physics seminars.

DOUBLE HONOURS IN PHYSICS AND ANOTHER DISCIPLINE

A Double Honours program allows concentration in Physics and a second subject. Students are required to take PHYS 121.6 (or PHYS 111.6 with a grade of 70% or better and permission of the Department), 223.3, 227.3, 251.3, 304.3, 341.3, 371.3, 381.3, 490.0; EP 271.3, 356.3; PHYS 323.3 or EP 311.3; MATH 110.3, 116.3, 338.6; 36 credit units in the second subject and 36 credit units of electives chosen to fulfill Requirements 1–5 and 7 of Program Type C.

Students should note that CMPT 116.3, and MATH 238.3, 266.3 and 276.3 are prerequisites for the 300-level Physics courses. Under the Double Honours program these classes must be taken as electives.

Students who wish to take a Double Honours program must consult the two departments concerned. Admission is

based on departmental recommendation and College approval.

MATHEMATICAL PHYSICS

The Departments of Mathematics and Statistics and Physics and Engineering Physics have developed an interdisciplinary program in Mathematical Physics. Interested students, particularly students interested in applied mathematics and theoretical physics, should consult the mathematical physics section of the *Calendar*.

MINOR IN ASTRONOMY

Students with an interest in Astronomy may take courses leading to a Minor in Astronomy in conjunction with any Four-year, Three-year or Honours degree in any other discipline within the College of Arts and Science. Students are required to complete 18 credit units of Astronomy, including ASTRO 101.6. As most senior Astronomy courses will only be offered in alternate years, students are advised to consult with the Department of Physics and Engineering Physics for assistance in selecting appropriate courses.

FIRST-YEAR COURSES

PHYS 111 is a one-year survey course which is designed for students not planning to major in physics. It is specifically designed to meet the needs of students in the Life Sciences, Health Sciences and other related disciplines. Although PHYS 111 is usually a terminal course for most students, it may be used towards a major in physics provided the student obtains a grade of 70% or better and permission of the department.

PHYS 121 is a calculus-based one-year survey course in physics. Students taking this course require a knowledge of calculus which may be gained concurrently.

It should be noted that laboratory work forms an integral part of all first-year physics courses.

COURSES FROM OTHER DEPARTMENTS AND COLLEGES

The following Engineering Physics courses may be credited towards a physics major or honours program. For details see the Courses section of the *Calendar*.

- EP 225.3 Waves, Fields and Optics
- EP 271.3 Heat, Kinetic Theory and Thermodynamics
- EP 311.3 Electronics I
- EP 317.3 Applied Physics of Materials
- EP 321.3 Electronics II
- EP 324.3 Mechanics IV
- EP 356.3 Electricity & Magnetism II
- EP 413.3 Instrumentation and Design
- EP 414.3 Instrumentation Laboratory
- EP 421.3 Optical Systems and Materials
- EP 431.3 Optical Systems and Materials 2

PHYSIOLOGY

The focus of the undergraduate programs is homeostasis in mammals, including humans. Students will study body functions at cellular, organ and organ systems levels and the ways that these functions are integrated in the whole animal.

Note: The programs in physiology have been changed recently. All students must contact the department before registering in the B.Sc. programs or any 300- or 400-level class in physiology.

ALL PROGRAMS - YEARS 1 & 2

The following courses should be completed before entering year three of any Physiology program:

BIOL 110.6; CHEM 112.3, 115.3, 250.3; MATH 110.3; PHYS 111.6; BIOCH 200.3 and 211.3; H SC 208.6; 12 credit units from Requirements C2 to C5, inclusive; electives to make a total of 60 credit units.

Note: BIOL 110 and CHEM 112.3 must be taken in first year because they are prerequisites for some of the 200-level classes required.

Note: Students who wish to continue in the study of physiology but who have taken BIOL 217 and 218 instead of H SC 208 should contact the department.

MAJOR IN PHYSIOLOGY (B.SC. FOUR-YEAR)

Third Year

PHSIO 334.6, 336.3, 337.3 and 6 credit units from PHSIO 346.3, 347.3, 348.3 or H SC 350.3; PL SC 314.3; or equivalent course in statistics; 6 credit units from Requirements C2 to C5 inclusive; electives to make 30 credit units.

Fourth Year

PHSIO 434.3, 435.3, 490.0 and at least 6 credit units from PHSIO 346.3, 347.3, 348.3 or H SC 350.3; 6 credit units from Requirements C2 to C5 inclusive; electives to make 30 credit units.

MAJOR IN PHYSIOLOGY (B.SC. THREE-YEAR)

Third Year

PHSIO 334.6, 336.3, 337.3 and 6 credit units from PHSIO 346.3, 347.3, 348.3 or H SC 350.3; 12 credit units from Requirements C2 to C5 inclusive.

Students who work toward the B.Sc. Three-year degree program may transfer to the B.Sc. Four-year degree program or, if a sufficiently high standing has been obtained, to the B.Sc. Honours program, by fulfilling the requirements of these degrees.

HONOURS IN PHYSIOLOGY

Third Year

PHSIO 334.6, 336.3, 337.3 and 6 credit units from PHSIO 346.3, 347.3, 348.3 or H SC 350.3; PL SC 314.3 or equivalent course in statistics; 6 credit units from Requirements C2 to C5 inclusive; electives to make 30 credit units.

Fourth Year

PHSIO 432.6, 434.3, 435.3, 490.0 and at least 6 credit units from PHSIO 346.3, 347.3, 348.3 or H SC 350.3; 6 credit units from Requirements C2 to C5 inclusive; electives to make 30 credit units.

For admission requirements see the index section of the *Calendar* for Arts and Science, Honours Programs.

COURSES IN OTHER DEPARTMENTS AND COLLEGES

The following course may be taken for credit towards a Physiology major and honours program:

VBMS 428.3 Gastrointestinal Physiology
For details see the courses section of the *Calendar*.

Students with interests in the neurosciences are encouraged to take ANAT 334.3 and 404.3 as electives.

POLITICAL STUDIES

MAJOR IN POLITICAL STUDIES (B.A. FOUR-YEAR)

6 credit units of 100-level POLST, POLST 203.6, 235.6 and 18 other credit units, at least 6 of which must be at the 300 level and at least 6 of which must be at the 400 level. Within this framework, students must choose 6 credit units from one of the following three subfields: Comparative Politics; Political Processes and Political Sociology; and International Relations.

MAJOR IN POLITICAL STUDIES (B.A. THREE-YEAR)

6 credit units of 100-level POLST, POLST, 203.6, and 18 other credit units, at least 6 of which must be at the 300 level or higher.

HONOURS IN POLITICAL STUDIES

Students taking an Honours Program in Political Studies are required to take the following: 6 credit units of 100-level POLST, POLST 203.6, 235.6, 12 credit units of 400-level seminars and 24 other political studies credit units. Within this framework, students must take 6 credit units from each of two of the three following subfields: Comparative Politics, Political Processes and Political Sociology, and International Relations. Students must take at least 6 credit units from among the following: POLST 255.6 (recommended), CMPT 100.3, STATS 244.3, ECON 204.6, or a language other than English. Students must consult with the department in the selection of their other courses.

DOUBLE HONOURS

Students who wish to do Double Honours in Political Studies and another subject are required to take 6 credit units of 100-level POLST, POLST 203.6, 235.6, 6 credit units at the 400 level and 12 other credit units in political studies.

MINOR IN POLITICAL STUDIES

Students may take courses leading to a Minor in Political Studies in conjunction with any Three-Year, Four-Year or Honours degree in any other subject area in the College of Arts & Science. Students are required to complete 21 credit units in Political Studies of which 6 credit units must be at the 300-level or above.

Students are advised that a second language is a valuable asset. French, in particular, should be considered by students, especially if they intend to pursue a career in the federal public service.

SUBFIELDS IN POLITICAL STUDIES

The following numbering system may help students to see the subfields in the discipline more clearly and to gauge better the level of a course.

Canadian Politics and Administration: 203, 220, 305, 306, 307, 320, 327, 404, 405, 424, 425.

Political Thought: 235, 331, 333, 335, 336, 337, 430, 431, 434, 436, 438, 439, 441.

Comparative Politics: 240, 241, 242, 243, 246, 247, 343, 346, 348, 385, 442, 443, 444.

Political Processes and Political Sociology: 252, 255, 351, 352, 354, 356, 358, 452.

International Relations: 260, 360, 362, 363, 365, 367, 368, 369.

PUBLIC ADMINISTRATION

Interested students should refer to the Public Administration section of the *Calendar* and contact the Chair, Public Administration.

ST. THOMAS MORE COLLEGE

Sections of some courses in this department are taught by faculty in the corresponding department of St. Thomas More College. These course sections are designated in the *Registration Guide* by section numbers prefixed with the letter "M."

PSYCHOLOGY

All degree programs in Psychology have been revised. Students enrolled prior to the 1999-2000 Regular Session should consult with the department. All students are expected to consult with an academic advisor each year.

The department has introduced breadth requirements to enhance a student's understanding of the scope of the discipline. Some of the courses at the 200- and 300-level have been arranged into two broadly-defined areas:

Group 1 - Courses related to the cultural, social, and environmental influences on behaviour:

200-level courses: PSY 213.3, 214.3, 216.3, 222.3, 223.3, 224.3, 225.3, 226.3
300-level A courses: PSY 315.3, 317.3, 323.3, 325.3

300-level B courses: PSY 316.3, 318.3, 324.3, 326.3, 328.3

Group 2 - Courses related to the cognitive, neuropsychological, and biological influences on behaviour:

200-level courses: PSY 242.3, 243.3, 246.3, 252.3, 253.3, 255.3, 256.3

300-level A courses: PSY 343.3, 347.3, 353.3, 355.3

300-level B courses: PSY 344.3, 348.3, 356.3

MAJOR IN PSYCHOLOGY (B.A. FOUR-YEAR)

The four-year major requires a minimum of 36 and permits a maximum of 60 credit units in psychology.

Students are required to take the following courses:

- (1) PSY 110.6
- (2) PSY 233.3, 234.3, 235.3

- (3) 6 credit units at the 200-level from Group 1
- (4) 6 credit units at the 200-level from Group 2
- (5) 3 credit units at the 300-level from Group 1A
- (6) 3 credit units at the 300-level from Group 2A
- (7) 3 credit units at the 300-level from Group 1 or 2B.

MAJOR IN PSYCHOLOGY (B.A. THREE-YEAR)

The three-year major requires a minimum of 30 and permits a maximum of 42 credit units in psychology.

Students are required to take the following courses:

- (1) PSY 110.6
- (2) PSY 232.3
- (3) 3 credit units at the 200-level from Group 1
- (4) 3 credit units at the 200-level from Group 2
- (5) 3 credit units at the 300-level from Group 1A
- (6) 3 credit units at the 300-level from Group 2A
- (7) 9 credit units of additional 200-, 300-, or 400-level courses.

HONOURS IN PSYCHOLOGY

Honours Programs in Psychology must be planned in consultation with the Head of the Department, preferably by the end of the second year. For a four-year honours degree, the student is required to take 60 credit units in psychology.

Students are required to take the following:

- (1) PSY 110.6
- (2) PSY 233.3, 234.3, 235.3
- (3) 6 credit units at the 200-level from Group 1
- (4) 6 credit units at the 200-level from Group 2
- (5) 3 credit units at the 300-level from Group 1A
- (6) 3 credit units at the 300-level from Group 2A
- (7) 3 credit units at the 300-level from Group 1B
- (8) 3 credit units at the 300-level from Group 2B
- (9) 3 credit units of additional 300-level from groups 1A, 1B, 2A, or 2B.
- (10) PSY 472.6
- (11) 6 credit units of additional 400-level courses
- (12) 6 credit units of additional 200-, 300-, or 400-level courses.

DOUBLE HONOURS

Double Honours programs are possible in psychology and a number of other subjects. The respective departments must be consulted in planning such programs. For a double honours degree a student is required to take 36 credit units in psychology.

Students are required to take the following:

- (1) Psy 110.6
- (2) PSY 233.3, 234.3, 235.3
- (3) 3 credit units at the 300-level from Group 1A
- (4) 3 credit units at the 300-level from Group 2A
- (5) 3 credit units at the 300-level from either Group 1B or Group 2B

- (6) PSY 472.6
- (7) 6 credit units of additional 400-level courses.

All students in PSY 110 will be asked to participate in research studies conducted within the Department of Psychology. Research participation is desirable both as a means of advancing the science of human behaviour and as a means of providing the introductory student with first-hand educational experience in psychological research.

ST. THOMAS MORE COLLEGE

Sections of some courses in this department are taught by faculty in the corresponding department of St. Thomas More College. These course sections are designated in the *Registration Guide* by section numbers prefixed with the letter "M."

PUBLIC ADMINISTRATION

Administrative Committee: **J. Garcea** (Political Studies), Coordinator; L.V. St. Louis (Economics), J. S. Steeves (Political Studies).

The College of Arts and Science offers a four-year program in Public Administration leading to the B.A. Four-year or B.A. Honours degree. Students wishing to register as Public Administration majors MUST consult the co-ordinator to determine whether they will enter the economics or political studies stream.

The requirements for the program are as follows:

- (1) 6 credit units 100-level POLST; POLST 203.6, 220.6, 305.3, 306.3; 320.6 or 327.6.
- (2) ECON 111.3, 114.3, 204.6 or CMPT 100.3 and at least 3 credit units in statistics*; ECON 211.3 (recommended) or 213.3, and 214.3; ECON 350.3 and 352.3 or 6 credit units from: ECON 327.3, 344.3, 347.3, 348.3 or 349.3.
- (3) 6 credit units at the upper level in either political studies or economics.
- (4) 6 credit units at the fourth-year level in either political studies or economics**.
- (5) A junior course in calculus (MATH 110.3 is recommended) to be taken as a prerequisite or corequisite for ECON 204.6, 211.3 or 213.3, and 214.3.
- (6) COMM 201.3 and 301.3.
- (7) 6 credit units from the following: ECON 234.3 or 275.3 or 316.3; COMM 202.3, 203.3, 206.3; 345.3, 348.3; or SOC 316.3; LAW 340.3. Students who have an interest in LAW 340.3 must consult the Co-ordinator of the Public Administration Program.
- (8) 24 credit units to fulfill Program Type B Requirements 2 to 5. (It is recommended that a language other than English be taken.)
- (9) 15 credit units of electives.

* For further detail on statistics see the Index section of the *Calendar* under Statistics Courses.

** Students should be aware that some senior courses may require prerequisites that may not be used for credit towards their degree.

HONOURS REQUIREMENTS

Honours status in Public Administration is achieved by the attainment of an average of at least 70% overall and in the Public Administration major. Only 6 credit units 100-level POLST or ECON 111.3 and 114.3 can be used in the calculation of the major.

Note: Please contact the Office of the Dean for a list of the courses in this program which are used for the calculation of the CPA in the major for graduation purposes.

DEGREE CHOICES

If the course electives are chosen properly, one can meet the degree requirements for Public Administration and Economics or Political Studies. However, a student may receive only one degree. The additional concentration can be recognized formally by letter from the College of Arts and Science.

REGIONAL AND URBAN DEVELOPMENT

Administrative Committee: J.C. Stabler, Chair, (Agricultural Economics); J. Garcea (Political Studies); D. Hay (Sociology); D. Gilchrist (Economics); M.R. Olfert (Agricultural Economics); J. Pooler, J. Randall, and A. Akkerman (Geography); G.A. Sparks (Civil Engineering); Student (President, Planning Students' Association); APCPS representative.

The Coordinator, Interdisciplinary and International Programs provides administrative support to the Chair, as well as being the initial contact for students requiring assistance. D. Favreau can be reached at (306) 966-4288 or email at diane.favreau@usask.ca.

Planning has long been practiced by communities and cities, provincial and national governments as well as by private organizations. Today with an expanding population which is increasingly living in urban-industrial areas the need for persons trained to think incisively about the development of, and planning for regions and urban areas is greater than ever before.

The Regional and Urban Development program is designed to acquaint the student with the organization and functioning of cities and regions. The central required core of the program is comprised of social science classes, and it is the social science approach to planning that underlies the program's philosophy for planning education. Social and economic planning for communities, together with policy aspects, are the emphases, and students are encouraged to engage in critical, survey and analytical research of local planning problems. In past years a report compiled by students in an Advanced Land Use Planning class was the basis for a brief presented to Saskatoon City Council concerning the reuse of closed-school sites.

In order to complete a B.A. (Four-year or Honours) degree in the R.U.D. Program (Planning Option), students are required to take 120 credit units, including:

- (1) 51 credit units in specified, required senior courses;

(2) a minimum of 12 credit units selected from one specialty track; and

(3) primarily junior courses to satisfy the College of Arts and Science Program Type B (Social Sciences) requirements.

REQUIRED R.U.D. PROGRAM COURSES

First Year

ECON 111.3, 114.3; GEOG 113.3, 114.3; 6 credit units of 100-level POLST; SOC 110.6.

Second Year

BIOL 253.3; ECON 211.3, 214.3; GEOG 246.3, 247.3; MATH 110.3; STATS 244.3 (or an approved course in statistics*); SOC 204.3 or 206.3 or 230.3.

Third Year

AG EC 432.3; ECON 347.3 or 349.3, 348.3; GEOG 249.3 or 349.3, 343.3, 346.3; POLST 305.3, 306.3.

Fourth Year

GEOG 442.3, 446.3

* For details see Index section of the *Calendar* under Statistics Courses.

Note: Students interested in architecture should consult the R.U.D. Program Co-ordinator for advice on course selection.

SPECIALTY TRACKS IN THE R.U.D. PROGRAM (PLANNING)

Each of the three specialty tracks (Community Development, Physical Environment, and Modelling and Analysis) is comprised of 39 to 66 credit units of classes. To complete the program, the student will be required to complete a minimum of 12 credit units of classes from one of the specialty-tracks of his or her choice. No more than 9 credit units shall be taken from a single department within a chosen specialty-track. As students will most probably be completing the College's Program Type B requirements during their first two years of university attendance, they will tend to complete their specialty-track courses in their third and fourth years.

The prerequisite courses for the majority of the upper-year courses in each specialty track are included within the tracks. The student may obtain any additional prerequisite courses, if these are specified, by selecting appropriately from requirements 3 and 5 of the College of Arts and Science Program Type B. Alternatively, special permission to enter a course may be required from the relevant instructor and/or the College.

COMMUNITY DEVELOPMENT SPECIALTY TRACK

AG EC 433.3; ECON 350.3; ENG 499.6; GEOG 208.3, 249.3, 349.3, 381.3, 391.3, 398.3; KIN 255.3, 355.3; NATST 110.6, 304.6, 401.3; POLST 220.6; SOC 204.3, 237.3, 319.3

PHYSICAL ENVIRONMENT SPECIALTY TRACK

AGRIC 112.3; AG EC 330.3 (430.3); ECON 275.3, GEOG 210.3, 225.3, 235.3, 270.3, 271.3, 280.3, 321.3, 323.3, 325.3, 351.3; LUEST 401.3; PHIL 226.3

MODELLING AND ANALYSIS SPECIALTY TRACK

GEOG 219.3, 222.3, 303.6, 320.3, 321.3, 322.3, 391.3, 398.3; CMPT 100.3, 101.3, C E 271.2, 316.3, 467.3; ECON 350.3; GEOG 340.3; MATH 116.3, 264.3 or 266.3

Two degree options are available:

(1) Students completing the core of required courses, and the minimum credit units in a specialty track, will receive a B.A. Four-year or Honours in Regional and Urban Development (Planning).

(2) Students may use their elective courses to fulfill the requirements for a departmental (subject) specialization and be awarded a B.A. Four-year or Honours in a single discipline, such as in economics, geography or sociology, together with the requirements of the R.U.D. (Planning) program.

CO-OPERATIVE EDUCATION PROGRAM

This five-year program is available to students in the B.A. Four-year and Honours programs. After completion of the second year (at least 54 credit units), students spend the first half of their third year and the last half of their fourth year in a paid work placement. Students complete four or five four-month paid work terms, then return to university for their final year. For program details, see the program description in the Geography section of the *Calendar*.

Entrance Requirements for RUD students: Students must hold a cumulative CPA of 70% or higher (or have permission of the Program Chair) and must have completed no fewer than 54 and no more than 84 credit units of course work. To qualify for participation in the Co-operative Education Program, students must successfully complete the following courses: one of ECON 111.3 and 114.3; one of GEOG 113.3 or 114.3; 6 credit units 100-level POLST, SOC 110.6, MATH 110.3, STATS 244.3 or equivalent, GEOG 246.3, 247.3 and 249.3.

RELIGIOUS STUDIES

The specific objective of the Religious Studies program is to ascertain and examine the human experiences and the processes involved in the emergence, growth, sustenance or modification of religious ideas and institutions and their implications for the individual and society. To this end, the department will provide students with an in-depth study of the traditions, texts, and themes of the major religions of the world through a variety of perspectives. The program is designed to reflect the diversity of content as well as approaches in the academic study of religion.

THE MAJORS AND HONOURS PROGRAMS

The Department of Religious Studies offers the majors and Honours programs to meet the following objectives:

- to offer significant exposure to all Religious Studies majors and Honours

students to the central themes, ideas, and institutions of the major world religions;

- to provide necessary methodological orientation for the academic study of religion to all Religious Studies majors and Honours students; and

- to develop a specialization in one religious tradition and impart basic language training which will constitute the foundation for graduate level work in the area of specialization for Honours students.

COURSE AREAS

Area A - Western Religious Traditions: RELST 220.3, 221.3, 223.3, 224.3, 225.3, 227.3, 228.3, 240.3, 314.3, 315.3, 316.3, 320.3, 326.3, 327.3, 328.3, 353.3, 355.3, 356.3, 357.3, 359.3, 360.3, 361.3, 363.3, 365.3, 391.3; CLASS 252.3, 341.3; HIST 285.6; PHIL 204.3.

Area B - Eastern Religious Traditions: RELST 211.3, 214.3, 217.3, 218.3, 230.3, 231.3, 234.3, 329.3, 330.3, 331.3, 341.3, 342.3, 390.3.

Area C - Themes and Approaches: RELST 280.3, 282.3, 283.3, 284.3, 285.3, 321.3, 392.3; ANTH 321.3; ENG 277.3, PHIL 202.3, 203.3; SOC 217.3, 321.3, 413.3.

Major in Religious Studies (B.A. Four-year)

Students must take a minimum of 36 credit units in Religious Studies and cognate classes designated for credit in Religious Studies. Area distribution requirements will include RELST 110.6 and RELST 280.3, plus 9 credit units in *AREA A*, 9 credit units in *Area B*, and 3 credit units in *Area C*. At least 9 credit units must be taken at the 300-level or above.

Major in Religious Studies (B.A. Three-year)

Students must take a minimum of 30 credit units in religious studies and cognate classes designated for credit in religious studies. Area distribution requirements will include RELST 110.6 and RELST 280.3, plus 9 credit units in *AREA A*, 9 credit units in *Area B*, and 3 credit units in *Area C*. At least 6 credit units must be taken at the 300-level or above.

Honours in Religious Studies

Students must take a minimum of 54 credit units in religious studies and cognate classes designated for credit in religious studies. Area distribution requirements will include RELST 110.6, RELST 280.3, and RELST 425.3; plus 9 credit units in *AREA A*, 9 credit units in *Area B*, and 3 credit units in *Area C*. Students must take at least 15 credit units at the 300-level or above. All Honours students are required to take at least 6 credit units in an appropriate source language pertaining to the area of specialization within the Western or Eastern Religious Traditions.

Areas of specialization currently possible in the department are: History of Christianity and New Testament Studies; Old Testament Studies; Chinese Religions; Buddhism; and Hinduism.

Note: Students intending to enter a major or Honours program in Religious Studies are advised to plan their program at an early

stage in consultation with the Department Head or a designated advisor.

Note: Honours students intending to enter into a Graduate program are recommended to take an additional 6 to 12 credit units in their area of specialization. Honours students are advised to discuss their program with the Department Head or designate in advance for selection of the area of specialization and the language requirement.

Honours Seminars: RELST 411.3, 412.3, 413.3, 422.3, 423.3, 425.3.

Honours Language Requirement: Students must take one of CHIN 111.6, GREEK 111.6, HEB 111.6, LATIN 111.6, or SANSK 101.6.

Students are further recommended to take CHIN 220.6, GREEK 201.6; HEB 201.6.

Note: Not more than 6 credit units in cognate classes may be counted towards the departmental requirements for majors and honours, excluding language classes.

Double Honours

Various Double Honours programs involving religious studies and another department are permissible. Students must take at least 36 credit units in religious studies and cognate classes designated for credit in religious studies. Area distribution requirements will include RELST 110.6, RELST 280.3, and RELST 425.3, plus 9 credit units in *AREA A*, 9 credit units in *Area B*, and 3 credit units in *Area C*. Double Honours students must take at least 9 credit units at 300-level or above. The details of the program should be discussed in advance with the two department heads or their designates.

MINOR IN RELIGIOUS STUDIES

The Religious Studies Minor program shall consist of at least 24 credit units in religious studies including 6 credit units in *Area A* (Western Religions), 6 credit units in *Area B* (Eastern Religions), 3 credit units in *Area C* (Themes and Approaches) and 9 credit units elective course work in one or more of these areas; at least 6 credit units out of 24 credit units should be at the 300- or 400-level.

Note: RELST 110.6 is calculated as 3 credit units in *Area A* and 3 credit units in *Area B* at the 100-level.

ST. THOMAS MORE COLLEGE

Sections of some courses in this department are taught by faculty in the corresponding department of St. Thomas More College. These course sections are designated in the *Registration Guide* by section numbers prefixed with the letter "M."

COURSES IN OTHER DEPARTMENTS

The following courses are credited towards a religious studies major and honours program. For details see Courses.

ANTH 321.3 Myth, Ritual and Symbolism (*Area C*)

CLASS 252.3 Paganism and Christianity in the Early Christian Centuries of the Roman Empire (*Area A*)

ENG 277.3 Literary Uses of Mythology (*Area C*)

HIST 285.6 (formerly HIST 234) History of Development and Underdevelopment in the Third World (*Area A*)

PHIL 202.3 Introduction to the Philosophy of Religion (*Area C*)

PHIL 203.3 Contemporary Philosophy of Religion (*Area C*)

PHIL 204.3 Philosophy of Religion (*Area A*)

SOC 217.3 The Sociology of Contemporary Religious Movements (*Area C*)

SOC 321.3 The Sociology of Religion (*Area C*)

SOC 413.3 Seminar in Sociology of Religion (*Area C*)

RUSSIAN

For program information see the Department of Languages and Linguistics in this section of the *Calendar*; for course descriptions see Russian in the Courses section.

SANSKRIT

For information on relevant programs see Religious Studies in this section of the *Calendar*; for course descriptions see Sanskrit in the Courses section.

SEMITIC LANGUAGES

For relevant program information see Classics and/or Religious Studies in this section of the *Calendar*; for course descriptions see Hebrew in the Courses section.

SOCIOLOGY

MAJOR IN SOCIOLOGY (B.A. FOUR-YEAR)

Students are required to take the following:

SOC 110.6; STATS 244.3 and SOC 240.3; SOC 232.3 and 233.3; SOC 232.3 should be taken as early as possible in the program and before any course at the 300 level; 18 other senior credit units, at least 12 of which must be at the 300 or 400 level.

Up to 60 credit units in Sociology may be chosen. Students are encouraged to take cognate courses in other departments such as Anthropology and Archaeology, Computer Science, Economics, Geography, History, Mathematics and Statistics, Native Studies, Philosophy, Political Studies, Psychology, Religious Studies, and Women's and Gender Studies. Students planning to apply for honours retroactively must take the same courses as Honours students (see below).

MAJOR IN SOCIOLOGY (B.A. THREE-YEAR)

Students are required to take the following:

SOC 110.6; SOC 232.3 and 233.3; SOC 232.3 should be taken as early as possible in the program and before any course at the 300 or 400 level; 18 other senior credit units, of which at least 6 must be at the 300 or 400 level.

Up to 42 credit units in Sociology may be chosen. Students are encouraged to take cognate courses in other departments such as Anthropology and Archaeology, Computer Science, Economics, Geography, History, Mathematics and Statistics, Native Studies, Philosophy, Political Studies, Psychology, Religious Studies, and Women's and Gender Studies.

HONOURS IN SOCIOLOGY

The Honours degree is considered the minimum professional degree in sociology. The Honours program, or its equivalent, is required for admission to graduate work.

Students are required to take the following:

SOC 110.6; STATS 244.3 and SOC 240.3; SOC 232.3 and 233.3; SOC 232.3 should be taken as early as possible in the program and before any course at the 300 level; SOC 303.6; SOC 332.6; 21 additional senior credit units subject to the condition that of the 51 credit units prescribed for honours at least 9 must be at the 400 level.

Students are encouraged to take cognate courses in other departments such as Anthropology and Archaeology, Computer Science, Economics, Geography, History, Mathematics and Statistics, Native Studies, Philosophy, Political Studies, Psychology, Religious Studies, and Women's and Gender Studies.

DOUBLE HONOURS

There are various Double Honours Programs in sociology and another subject. Students are required to consult the departments concerned.

The Sociology requirements are:

SOC 110.6; STATS 244.3 and SOC 240.3; SOC 232.3, 233.3, 303.6, and 332.6; 12 other credit units of which at least 6 must be at the 400 level.

ABORIGINAL JUSTICE AND CRIMINOLOGY PROGRAM FOR NATIVE STUDENTS

Major in Sociology (B.A. Three-year)

This program is intended to prepare Native students for careers in the criminal justice system. It includes required courses in Sociology, focusing on criminology and related courses, and in Native Studies. This course work includes two 12-week practicum-based courses, normally held in the summer, designed to provide students with the ability to evaluate critically two substantive areas of relevance to the program. Students intending to complete this program must consult the department in the spring of their final year in high school or during their first year of university studies to determine an appropriate sequence of courses and to arrange registration in the practicum.

Required courses: SOC 110.6, 203.3, 212.3, 232.3, 233.3, 313.6, 314.6; NATST 110.6, 219.3; ENG 110.6; STATS 244.3. It is recommended students also take additional courses selected from SOC 312.3, 319.3, 320.3, 329.3, 330.3, 341.3, 418.3, and NATST 225.3. Students are allowed to take up to 42 credit units in the B.A. Three-year program.

MAJOR IN SOCIOLOGY OF BIOTECHNOLOGY (B.A. FOUR-YEAR)

Students are required to take the following:

SOC 110.6; STATS 244.3 and SOC 240.3; SOC 232.3, 233.3, 292.3, 323.3; 12 senior credit units in Sociology including at least 9 credit units at the 300-400 level; BTECH 200.3, 300.3, 400.3; AG EC 292.3; COMM 345.3; PHIL 236.3, POLST 362.3. Recommended: HIST 284.3.

PRE-SOCIAL WORK PROGRAM

For a description of this program see Index section of the *Calendar* under Arts and Science, "Admission to Professional Colleges."

ST. THOMAS MORE COLLEGE

Sections of some courses in this department are taught by faculty in the corresponding department of St. Thomas More College. These course sections are designated in the *Registration Guide* by section numbers prefixed with the letter "M."

COURSES IN OTHER DEPARTMENTS

The following courses may be credited towards sociology major and honours programs as courses in sociology. For details see the Courses section of the *Calendar*.

POLST 252.6 Political Sociology

STATS 244.3 Elementary Statistical Concepts for the Social Sciences

SPANISH

For program information see the Department of Languages and Linguistics in this section of the *Calendar*; for course descriptions see Spanish in the Courses section.

UKRAINIAN

For program information see the Department of Languages and Linguistics in this section of the *Calendar*; for course descriptions see Ukrainian in the Courses section.

URBAN PLANNING

For program information see the Regional and Urban Development section or the Urban Planning minor in the Geography section of the *Calendar*.

WOMEN'S AND GENDER STUDIES

Women's and Gender Studies examines human behaviour, institutions and culture in order to reveal and analyze the gender assumptions on which they are based. It examines the changing position of women and the changing understanding of gender primarily within Western societies but also in a cross-cultural context. It utilizes an interdisciplinary approach to such topics as the relation between biology and gender construction, patterns of language use by men and women in contemporary society, the role of gender in the processes of identity formation and socialization, the

representation of gender in literature, art and religion, and women's changing economic and political roles. While Women's and Gender Studies utilizes concepts developed within longer-established disciplines, it has developed distinctive conceptual frameworks and analytic methodologies which challenge and complement those of other academic disciplines.

Women's and Gender Studies offers a Three-year major program, a Four-year major program and an 24 credit unit minor program. The Three-year program will provide excellent preparation for students planning to take a professional program. The Four-year program features specialization options with other disciplines. The Four-year program integrates 24 credit units of gender content with 24 credit units in the disciplinary specialization. Students may choose one of seven sub-specialty options.

MAJOR IN WOMEN'S AND GENDER STUDIES (B.A. HONOURS)

The Department of Women's and Gender Studies is currently developing a B.A. Honours program in Women's and Gender Studies. Students interested in pursuing this option should contact the Department.

MAJOR IN WOMEN'S AND GENDER STUDIES (B.A. FOUR-YEAR)

Required courses:

- (1) WGST 110.6, 310.3, 311.3, 312.3;
- (2) 9 other credit units of WGST and/or cognate courses, at least 3 credit units of which must be taken at the 300 or 400-level;
- (3) One of the following options:
Art & Art History Specialization (24 credit units): ARTH 120.3 and 121.3; 6 credit units of 100-level studio art; 3 credit units in the history of art before 1800; 3 credit units in the history of art after 1800; 6 credit units from the following: ARTH 257.6, 319.6, 324.3, 325.3, 326.3, 328.3, 440.6; WGST 201.3, WGST 352.3. WGST 201 and 352 may not be used to fulfill requirement (2) above.

Students must complete Program Type D requirements. Students intending to go on to graduate work in Fine Arts should seek advice from the Department of Art and Art History regarding graduate entrance requirements.

Economics Specialization (24 credit units): ECON 111.3, 114.3, 211.3 or 213.3, 214.3; 12 credit units in ECON, of which six credit units must be chosen from the following: ECON 221.3, 227.3, 327.3.

Students must complete Program Type B requirements. Students who successfully complete the specialization in Economics will be granted a Minor in Economics. Students intending to go on to do graduate work in Economics should seek advice from the Department of Economics regarding graduate entrance requirements.

English Specialization (24 credit units): ENG 110.6; 6 credit units from pre-20th-century English literature (refer to categories 1, 2, and 3 in the English section of the Calendar; 6 other credit units in English; ENG 281.6 (cognate). This course may not be used to fulfill requirement (2) above.

Students must complete Program Type A requirements. Students intending to go on to graduate work in English should seek advice from the Department of English regarding graduate entrance requirements.

History Specialization (24 credit units): 6 credit units of History at the 100-level; 12 credit units from HIST 259.3, 260.3, 340.3, 343.3, 346.3, 347.3, 351.3, 355.3, 373.3, 374.3, 461.6, 464.6; courses used to fulfill this requirement may not also be used for requirement (2) above; 6 credit units in other HIST courses not listed in the previous requirement. All students specializing in History must take at least 6 credit units having a terminal date of 1815 or earlier.

Students must complete Program Type A requirements. Students intending to go on to graduate work in History should seek advice from the Department of History.

Native Studies Specialization (24 credit units): NATST 110.6, 209.3, 211.6; 6 credit units at the 300- and/or 400- level; NATST 225.3 (cognate). This course may not be used to fulfill requirement (2) above.

Students must complete Program Type B requirements. Students intending to go on to graduate work in Native Studies should seek advice from the Department of Native Studies regarding graduate entrance requirements.

Philosophy Specialization (24 credit units): PHIL 224.3 and PHIL 227.3 (cognate). These two courses may not be used to fulfill requirement (2) above; at least 18 senior-level credit units in Philosophy including 6 credit units from each of Philosophy course categories A, B, and C, and including at least 6 credit units at the 300- or 400-level. Students are encouraged to take PHIL 242.3.

Students must complete Program Type A requirements. Students intending to go on to graduate work in Philosophy should seek advice from the Department of Philosophy. Students who have satisfied the requirements for the WGST specialization in Philosophy are not permitted to count the same courses for a Minor in Philosophy.

Sociology Specialization (24 credit units): SOC 110.6; SOC 232.3 and 233.3; SOC 232.3 should be taken as early as possible in the program and before any course at the 300- or 400-level; STATS 244.3 and SOC 240.3; 6 credit units from cognate Sociology courses. Courses used to fulfill this requirement may not be used to fulfill requirement (2) above.

Students must complete Program Type B requirements. Students intending to go on to graduate work in Sociology should seek advice from the Department of Sociology regarding graduate entrance requirements.

Please note the following: Psy 233.3 is equivalent to STATS 244.3; Psy 234.3 is equivalent to Soc 240.3.

MAJOR IN WOMEN'S AND GENDER STUDIES (B.A. THREE-YEAR)

Required courses:

- (1) WGST 110.6, 310.3, 311.3, 312.3;
- (2) 9 other credit units of WGST;
- (3) 6 credit units of cognate courses.

Students must complete Program Type A, B, or D requirements.

MINOR IN WOMEN'S AND GENDER STUDIES

A minor program in Women's and Gender Studies may be taken in conjunction with any major or honours bachelor's degree in the College of Arts and Science. The program is designed to offer students an opportunity to integrate their understanding of the role of women in society and culture with other disciplines.

Required courses (24 credit units): WGST 110.6 and 310.3; either WGST 311.3 or 312.3; 12 other credit units of WGST and/or cognate courses.

To achieve the minor in Women's and Gender Studies, a CPA of 62.50% must be obtained on all WGST and cognate courses taken.

COGNATE COURSES

For details see the Courses section.

ARTH 252.6 First People's Art History

ARTH 257.6 Introduction to Canadian Art History

ARTH 260.3 History and Theory of European Architecture 1400-1700

ARTH 261.3 History and Theory of European Architecture 1700-1900

ARTH 319.6 Studies in 19th Century Visual Culture

ARTH 322.6 Picturing the West: Representing the America and Canadian Frontiers, 1820-1940

ARTH 323.3 European Colonialism in the Visual Arts, 1880-1920

ARTH 324.3 early 20th Century Studies in Art and Architecture, 1900-1918

ARTH 325.3 Early 20th Century Studies in Art and Architecture, 1918-1940

ARTH 352.3 Digital Culture and the Art of the Internet

ARTH 437.3 Postcolonial Issues in Contemporary Canadian Art

ARTH 440.3 Studies in Contemporary Canadian Art

CLASS 225.3 Women and Antiquity

ECON 221.3 Women and the Economy

ECON 227.3 Wage Determination

ECON 327.3 Economics of Pay Inequality

EDFDT 482.3 Women and Education

EDFDT 483.3 Women and the Teaching Profession

EDFDT 486.6 Gay and Lesbian Issues

ENG 281.6 Feminist Critical Theory and Literature by Women

ENG 386.3 Courtly Love and the Family in the Middle Ages

ENG 483.6 Studies in Women's Literature

ENG 484.3 Topics in Women's Literature

GEOG 314.3 Geographies of Health and Healing

GEOG 347.3 Gender and the City

HIST 259.3 Canadian Women's History from Pre-Contact Period to 1918

HIST 260.3 Canadian Women's History from 1919 to the present

HIST 340.3 The Early Modern Town in Britain and Europe

HIST 346.3 Women in the Workplace: England 1780-1920

HIST 347.3 Feminism and Society: England 1790-1945

HIST 351.3 Canadian Social History from 1800-1914

HIST 355.3 Canadian Social History from 1914 to the present

HIST 373.3 Race, Class and Gender in U.S. History, 1790-1865

HIST 374.3 Race, Class and Gender in U.S. History, 1865-1983

HIST 461.3 Canadian Women's History

NATST 225.3 Native Women in Canada

NATST 419.3 First Nations Women and the Law

PHIL 224.3 Philosophy of Sexuality

PHIL 227.3 Introduction to Feminist Philosophy

POLST 351.3 Women and Political Power

POLST 352.3 Women, Political Participation and Public Policy

RELST 220.3 Women in Western Religions

RELST 321.3 Feminist Theologies

RELST 359.3 Women and the Bible

SOC 342.3 Sociological Theories of Women's Studies

SOC 436.3 Advanced Seminar in the Sociology of Women's Health

SOC 442.3 Advanced Seminar in Contemporary Developments in Women's Studies

ARTS & SCIENCE

College of Arts and Science courses are listed in the Courses section under the subject headings listed below. Only courses in these subjects are acceptable for credit towards an Arts & Science degree. A list of all courses which transfer from other colleges is available in the Office of the Dean.

Anatomy (ANAT)	Cree (CREE)	Land Use and Environmental Studies (LUEST)	Political Studies (POLST)
Anthropology (ANTH)	Drama (DRAMA)	Latin (LATIN)	Psychology (PSY)
Archaeology (ARCH)	Economics (ECON)	Linguistics (LING)	Regional and Urban Development (RUD)
Art (ART)	English (ENG)	Literature (LIT)	Religious Studies (RELST)
Art History (ARTH)	French (FR)	Mathematics (MATH)	Russian (RUSS)
Astronomy (ASTRO)	Geography (GEOG)	Microbiology and Immunology (MICRO)	Sanskrit (SANSK)
Biochemistry (BIOCH)	Geological Sciences (GEOL)	Music (MUSIC)	Sociology (SOC)
Biology (BIOL)	German (GERM)	Native Studies (NATST)	Spanish (SPAN)
Biotechnology (BTECH)	Greek (GREEK)	Palaeobiology (PBIO)	Special Studies (SP ST)
Chemistry (CHEM)	Health Science (H SC)	Pharmacology (PHCOL)	Statistics (STATS)
Chinese (CHIN)	Hebrew (HEBREW)	Philosophy (PHIL)	Ukrainian (UKR)
Classics (CLASS)	History (HIST)	Physics and Engineering Physics (PHYS)	Women's and Gender Studies (WGST)
College Scholars (COL SC)	Interdisciplinary Studies (INTST)	Physiology (H SC, PHSIO)	
Computer Science (CMPT)	International Studies (INTNL)		