HUMBER

Calendar 1988-89

HUMBER COLLEGE

OF APPLIED

ARTS AND

TECHNOLOGY

CALENDAR FOR

ALL POST-SECONDARY

AND SHORT PROGRAMS

1988-89

Declaration of Waiver

The information in this calendar is accurate as of August 1, 1987. The College does its best to up-date calendar information regularly so that students are not inconvenienced. However on occasion, changes do occur. Therefore, after August 1, 1987, the College reserves the right to modify or cancel any program, option, course, program objective, fee, timetable or campus location without notice or prejudice. It is also the College's right to schedule classes any time, Monday through Saturday. Students should be aware that it may be necessary for them to take a course or courses during the evening or on Saturday.

HUMBER

st students, securing employment which is directly related field of study, and which offers many advancement unities, is just as important as realizing their educational s.

nber, we recognize how vital these goals are, and we strive our students fulfill both of these ambitions. With over 120 diploma, certificate and apprenticeship programs to offer, h a consistent placement rate of over 90% each year, r's students are able to successfully combine their education eir careers.

mber do the same for you.

r. . . developing careers for your lifetime.

ore information on Humber please see your guidance llor or call our Enquiry Centre at 675-5000. Applicants who rea codes 416, 519, 613 or 705 may contact the Registrar's by using our new Watts line 1-800-268-4867.

Calendar 1988-89

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Entry Requirements to Full-Time Programs

Humber College offers a wide range of full-time diploma and certificate programs with normal completion periods varying from several months to three years.

Diplomas are awarded upon the successful completion of programs that have a duration of at least two years.

Certificates are awarded upon successful completion of programs in which the program objectives or job entry skills can be mastered in less than two years.

Admission Requirements

A. Minimum Requirements for Post-Secondary Programs

The minimum admission requirement is either an Ontario Secondary School Diploma (OSSD) or an Ontario Secondary School Graduation Diploma (OSSGD), or mature student status. (Minimum age 19 on/or before the first day of classes. See Section D).

Many programs have additional admission requirements. These may include specific secondary school courses, voluntary work experience, etc. As these may vary from program to program, you should refer to the specific admissions requirements sections of each program. Students who do not meet the minimum program requirements may be considered on an individual basis or may be considered for admission to alternate programs.

B. Minimum Requirements for Adult Training Programs

These programs have a variety of entrance requirements. Please refer to the individual program for specific details. Applicants may be considered as mature students for these programs. (See Section "D" for mature student process).

C. Equivalent Admission Requirements

If you attended secondary school in another province or country, you must prove that your educational standing is equivalent to the Ontario Secondary School Diploma.

The College will recognize the following equivalents insofar as the student meets College requirements in particular subjects and/or averages:

All Canadian provinces:

- a valid secondary school diploma or equivalent

United Kingdom, West Indies, East and West Africa:

- general certificate of education with appropriate credit standing in six academic subjects at the ordinary level or C.X.C. level (Caribbean Examination Council)

United States of America:

- Grade 12 - (University Program)

Applicants from other countries are considered on an individual basis.

D. Mature Students

Applicants who do not possess the minimum admission requirements but who have reached their nineteenth birthday by the first day of classes and are permanent residents of Canada may apply as mature students.

The admissions department will assess the current academic strengths of mature student applicants through an interview and/or testing and may recommend direct entry into a program or academic upgrading to help better prepare a mature student for their studies.

Humber College offers a specific program of study in academic upgrading geared to our individual programs. Level IV Academic Upgrading from other colleges will be accepted for admission at Humber College.

E. Admission of Students for Whom English is a Second Language

Since most activities (lectures, seminars, laboratories) at Humber College are conducted in the English language, it is imperative that students be proficient in written and spoken English.

Applicants under this category may be required to satisfy the above requirements by undergoing testing at the College or submitting results of a recent TOEFL test (Test of English as a Foreign Language).

Further information may be obtained by writing to:

Test of English as a Foreign Language
Box 899
Princeton, New Jersey
U.S.A. 03540

Humber College requires a minimum score of 550 for admission. Students may be referred to our academic upgrading program or special classes to improve their language skills before being admitted to the College program of their choice.

Those students enrolled at Humber College who are experiencing language difficulties may also be referred to special English classes as part of their program.

F. Special Needs Students

Students requiring services to accommodate a learning disability or physical disability may contact the Counselling Department at Humber College. It is the student's responsibility to notify the College of resources needed during the academic year.

How to Apply

1. All Colleges of Applied Arts and Technology in Ontario use the same application form. These applications are available in all Ontario secondary school guidance offices or through your local community college.

2. The applicant must first complete Part "A" of the Application form and then request the guidance office of the secondary school he or she is attending to complete Part "B". The secondary school will then submit the form to the College.

3. Applicants who apply as mature students or who have not completed their secondary school studies in Ontario, need not complete Part "B". Applicants in the latter category must attach certified copies of their educational transcripts to the application form for evaluation.

4. Applications received for the September, 1988 intake will not be acknowledged before January 1, 1988.

5. Interested students are urged to apply as early as possible since many programs require the applicant to attend information or interview sessions or to undergo testing.

Applications postmarked up to and including March 1, 1988 will be considered equally. Applications postmarked after March 1, 1988 will be considered on a first-come first-served basis, until all program seats are filled.

Foreign Students

Applications from foreign students must be accompanied by certified "true" copies of their educational documents and a recent T.O.E.F.L. score (Test of English as a Foreign Language).

Selection Procedures

a) Admission requirements vary from program to program. Selection criteria may be based on any combination of the following:

- a review of the applicant's academic record;
- a review of any additional documentation submitted to support the application and required by the program (ie. resume);
- the results of an interview, an audition, a test, a questionnaire;
- a review of a portfolio;
- any other criteria relevant to the program.

The selection of applicants will be based on all criteria listed under individual program descriptions as admission requirements. This

Entry Requirements to Full-Time Programs (cont'd.)

process will take place between January 1 and April 15 for those applications postmarked on or before March 1.

b) Priority for Admission

In accordance with the Ontario Ministry of Colleges and Universities policy, students will be considered for admission to Humber College in the following order of preference:

1. Permanent residents of Ontario.
2. Permanent residents of other provinces and territories in Canada.
3. Applicants from Commonwealth Countries.
4. Applicants from other countries.

c) Oversubscribed Programs

These are programs where more applications are received than there are seats available. The admission requirements to most of these programs include specific requirements such as attendance at an information session, the completion of a questionnaire, volunteer experience etc. Therefore, applications for these programs should be postmarked on or before March 1.

d) Notification of Admissions Decision (approvals, regrets and wait list status)

Applicants will be notified of admission decisions beginning April 15.

Those applicants approved for admission to a program may need to meet the following conditions on or before the first day of classes before their admission is considered final:

- completion of secondary school studies to obtain a Secondary School Diploma;
  and/or
- completion of particular courses in which applicants are currently enrolled, to meet specific program requirements;
  and/or
- completion of a college preparatory program to the equivalent level of that specified in the program requirements;
  and/or
- submission of specific documentation as required by program (ie. medical forms).

Applicants will be notified of all conditions to be met.

Applicants placed on a waiting list will be advised "on request" of their position on that list. As seats become available, applicants on the waiting list will be notified. Waiting lists will be maintained until September only. Those remaining on a waiting list must re-apply to the program the following year.

Applicants who are not offered admission to a program or those who are placed on a waiting list may be referred to a College preparatory program and/or referred to our Counselling services to discuss career alternatives.

An offer of admission may be withdrawn if an applicant fails to pay fees by the stipulated deadlines.

e) Admission Review Process

Applicants who wish to question or who wish to have the admissions decision explained in some detail, may do so by calling the Director of Admissions at the campus where they applied. It is our intention at Humber College to deal as fairly as possible with all applicants.

f) Dates to Remember

January 1:

First date that any college may acknowledge receipt of application for the following September.

March 1:

All applications postmarked by this date will be considered equally. Applications received after this date will be considered on a first-come, first-served basis.

April 15:

First date that any college may advise applicants of admissions decisions for the following September.

Re-admission to the College

Students who have been unsuccessful in recent studies in a post secondary program at Humber College, and who wish to be re-admitted must apply for re-admission using the common application form for community colleges.

The Director of Admissions will consider each application for re-admission after consultation with the academic division concerned.

Students may be requested to attend an interview with the Director of Admissions to review their status.

Advanced Standing Procedures

Advanced standing is awarded when a student is granted credit for employment experiences or studies completed which are equivalent in content to work covered in the course in question (no other course needs to be substituted).

Students seeking advanced standing must apply to a program using the common college application forms and attach certified copies of transcripts, course outlines and other documentation. Advanced standing will be granted on the recommendation of the appropriate academic division via the Director of Admissions.

The assessment of an applicant's competencies in specified knowledge and skills objectives may involve a review of academic documents, tests, essays and references.

Students will be notified of an admission decision as soon as possible. The specific details of the student's status will be outlined in writing (ie. which courses the student must complete and those from which he/she has been exempted).

Additional Admissions Information

Students who have been unsuccessful in programs or courses from other post-secondary educational institutions may be asked to attend an interview with the Director of Admissions. At that time the reasons for the previous lack of success will be reviewed, appropriate tests may be administered to ensure entrance competencies. The Director of Admissions will then make the admissions decision.

Studying as a Full-Time Student

The majority of students attend Humber College on a full-time basis. This means that they are enrolled in at least 2/3 of the courses prescribed for their given semester or at least 70% of the credit hours prescribed for their given semester.

(The requirement to qualify as a full-time student for the purposes of receiving Ontario Student Assistance (OSAP) is higher than the above. Please contact the Financial Aid Officer for details.)

Studying as a Part-Time Student

With academic divisional approval, a student may be allowed to enrol in day courses on a part-time basis; however, approval and registration may only occur at the commencement of classes after full-time students have been accommodated.

A part-time student is one who is enrolled for a course or courses which form part of a post-secondary program and who is carrying a course load which is either:

a) less than 2/3 of the courses normally taken by a full-time student in a given semester.

b) less than 70% of the total credit hours normally taken by a full-time student in a given semester.

If you are interested in evening classes, please refer to our "Inroads" publication available at all our Registration Centres or by calling 675-5005.

How to get the most out of this Calendar

You will notice that there are six basic divisions where we have tried to group together related programs. These divisions are Applied & Creative Arts, Business, Health Sciences, Hospitality, Tourism & Leisure Management, Human Studies and Technology.

This year we have included course descriptions, which are listed alphabetically at the end of each Academic Division section. So, if you wish to read the course description for Industrial Design 1 (course 472-150), which is included in the Industrial Design curriculum, please go to the end of the Applied and Creative Arts Section, where all the course descriptions are listed alphabetically.

All Academic Divisions require that students take Communications (for example, Language Skills, Communications 1 and 2) and General Studies courses. All of these course descriptions can be found at the end of the Human Studies section.

Short programs are placed at the end of each Division. These usually have a duration of less than a year and are often sponsored by the Canada Employment and Immigration Centre.

If you do not find the program you are looking for in the table of contents, look up the index in the back of the book where all our programs are listed alphabetically. The programs are often under two different names. For example, Retail Floriculture is also listed under Flower Shop Management. An asterisk in front of a program means that Humber is the only college to offer this program in Ontario.

Humber is your Best-Choice College

Humber Is Your Best-Choice College

Committed to excellence, Humber offers 125 full-time programs, all of which take your skills and interests in new directions. Countless opportunities exist for you to develop as fully as you wish. You can study anything from advertising design to yachting studies.

This calendar describes the wide range of day programs offered at Humber as well as admission requirements and curriculum for each. Because Humber offers so much, chances are you will find the best program for your needs and interests. This calendar can lead you to your best choice.

If you have further questions, contact the Registrar's office at 675-5000.

Fees and Financial Assistance

Fees

The fees listed below are effective September 1, 1987 for the 1987/88 academic year. The information is accurate at time of printing but may change at any time subject to the approval of the Ministry of Colleges and Universities and/or the college's Board of Governors.

Tuition Fees

Tuition fees are determined by the Ministry of Colleges and Universities and are standard throughout Ontario.

a) Post-secondary programs. Canadian citizens or permanent residents: The standard tuition for a normal two semesters (32 weeks) is -- $620.00.

Post-secondary programs. For foreign students: The standard tuition for a normal two semesters (32 weeks) is — $5,173.00.

Exceptions: Students who are exempt from payment of foreign student tuition fees as outlined by the Ministry of Colleges and Universities.

Note: some program tuition fees may be different than stated above depending on the length of the program or other factors as set by the Ministry of Colleges and Universities.

Confirmation Fees

Applicants offered admission to a post-secondary program will be required to reserve their seat by paying a $50.00 non-refundable confirmation fee by the date shown in the admissions offer. The confirmation fee is a partial pre-payment of the standard tuition fee. Failure to remit this confirmation fee by the date shown may result in the loss of a seat in the program. Foreign students will be required to pay full fees by the date shown in the admissions offer.

Incidental Fees

Incidental fees are collected on behalf of the Student Council and are determined by the student council and the college's Board of Governors.

Incidental fees are charged to all students in post-secondary programs and the standard fee for a normal two semesters (32 weeks) is $80.00.

Please see the Student Association Council for details.

Co-op Fees

An additional fee of $125.00 will be charged to all students who are on a co-op work term as partof their regular post-secondary program. The fee will be applied to each term where the work placement occurs.

Equipment Deposit

An equipment deposit of $100.00 is levied for some programs and covers breakage of equipment used by students. This amount is refundable at the end of the year after clearance authorization is received from the program coordinator. This deposit will be identified in the information mailed to all students prior to enrolment.

Part-Time Day Studies

The standard tuition fee is $1.25/credit hour as governed by the Ministry of Colleges and Universities. For continuous learning evening studies, please consult the Humber College Inroads calendar.

Fees for Adult Training Programs

The standard tuition fee for adult training programs is $16.65 per week (subject to change). Please refer to individual descriptions for program duration.

Fees and Financial Assistance (cont'd.)

Method of Payment

Fee payments will be accepted by cash, certified cheque, money order or chargex. (Students who intend to pay by chargex, other than their own, must have written approval from the card holder.)

Payments are to be made payable to Humber College. Please do not send cash in the mail.

Late Payment Charge

Students who fail to pay fees by the published deadlines may be required to pay a late payment charge. This charge is levied by the Office of the Registrar according to the program and the availability of seats in the program. The late payment charge ($25.00) is applied at the time the payment is received or by the postal date if applicable.

Tax Receipts

Official receipts are issued for tuition fees only and are mailed in February of each year. The receipt covers the previous year's studies.

Failure to Pay Fees

Failure to pay fees may result in the withdrawal of an offer of admission. It is essential that students pay fees by the stipulated deadline dates.

Application for Refund

A refund for a course or program will be issued only if a student applies in writing to the Office of Registrar on the close of business on or before the tenth school day after the start date of the course or program. (Certain courses that start later and/or are condensed may have different refund periods. See the evening calendar for details.)

Sponsorship

Sponsorship generally means that the student's fees will be paid by the sponsor. Students may receive living allowances and/or book costs as well. Typical sponsors would be the Department of Indian and Northern Affairs, Vocational Rehabilitation Services (Ministry of Community and Social Services) and Workers Compensation Board.

Students who wish to apply for sponsorship must contact the agency involved and request that authorizations for sponsorship be submitted to the Registrar's office in writing prior to registration. Many programs are approved for sponsorship by the Canada Employment and Immigration Commission. Contact your nearest Canada Employment Centre for more details.

Language Skills Courses

All freshmen students at Humber College are tested in English to determine language competency. Based on the test results some students will be required to enrol in an additional English course to help improve their communication level. These students will then take the other communication courses in more senior semesters. Our experience has shown that the extra course significantly enhances students' abilities to achieve good results in subsequent English courses and in their program.

Financial Assistance

Ontario Student Assistance Program

The Ontario Student Assistance Program, or O.S.A.P., has a number of plans to help you meet the cost of full-time post-secondary study. The amount of funds that may be granted does not cover the full cost of coming to College. Each application is assessed on the basis of resources, real or expected, available to the student. The amount granted will vary depending upon the resources available as determined by the O.S.A.P. assessment, and allowable costs for each program.

Canada Student Loans Plan

This program provides subsidized loan assistance to students who are registered in an approved certificate or diploma program which lasts at least 12 weeks. To qualify for a Canada Student Loan, you must take at least 60 percent of a full course load as defined by Humber College.

Scholarships and Bursaries

Scholarships and bursaries, donated by corporations, community organizations and individuals, are also available. Scholarships are awarded according to the donor's specifications to students who achieve academic excellence. Bursaries are awarded on the basis of need but marks are taken into consideration.

Humber does not offer any entrance bursaries or scholarships.

For more information on financial assistance call the Financial Aid office at 675-5001.

Student Services

Athletics

While at Humber, you are welcome to take advantage of our excellent athletic facilities. We have squash courts, gymnasiums, weight training rooms, saunas, jogging areas and more.

If you prefer team sports, there is a variety of varsity and intramural activities which range from basketball and soccer to ice hockey. Or, if you just want to get in shape, we have regular fitness classes during the day and in the evenings. Come as often as you like, but remember to bring your student card.

For more information call the North Campus Athletic Department at 675-5097.

Counselling Services

Deciding on the program that is right for you is not always an easy task. Neither is choosing an alternate program if you can't have your first choice. Our counsellors will help you find information and make decisions even before you start classes.

Once you are a student at Humber it may happen that you question whether the program you chose is best for you. Or, you may feel that you could learn more if you had better study habits. Our counsellors can help you with these problems as well.

Our resources include a computerized career-search system called CHOICES. We also have audio and video tapes on study skills and self-management. These tapes can help you to build confidence and reduce tension. A Peer Tutoring Program pairs weaker students with stronger ones in various subject areas.

At school, at work, or at play every extra skill can help you achieve your goals. Drop in and make an appointment with the Counselling office on your campus.

North Campus Main Office: Room C133, 675-5090

Divisional Offices:

- Business, Room E118
- Human Studies, Room K201
- Technology, Room H221

Lakeshore: Room A120, 252-5571, ext. 3331

Queensway: Room 6C, 252-9441, ext. 317

Keelesdale: Room 7, 763-5141

Day Care Facilities

Students with children are welcome to use either the Children's Activity Centre, the Child Development Centre, the Day Care or the Humber Woodbine Day Care.

Student Services (cont'd.)

The Children's Activity Centre cares for children between the ages of 16 months to seven years on a part-time basis (up to 24 hours a week). Students using this service must be on the North Campus.

The Child Development Centre offers full-time care for infants up to five years of age, as well as children with special needs.

The Day Care Centre offers full-time care for children between the ages of two to six years. A full day kindergarten program is provided.

The Humber Woodbine Day Care offers full-time care for children from birth to five years of age and is located in the Woodbine Shopping Mall. The three other centres are located at the North Campus.

For more information about these services and their fee, call 675-3111 - Activity Centre, Ext. 4430, Day Care at ext. 4497 and Humber Woodbine Care, ext. 4486. You can call the Child Development Centre at 675-5057.

Food Services

Whether you want a nutritious snack or a hot lunch or dinner, the Food Services Department strives to provide you with quality food at reasonable prices. Food service outlets at the North Campus include the Humberger, The Pipe (Main Cafeteria), The Burger Bar, and The Sub and Shake Shop. Operating hours vary but at least one outlet is open each week day until 9:00 pm, except Friday. On Saturdays The Humberger is open from 8:00 am to 1:30 pm.

The Lakeshore, Queensway, Keelesdale and Osler Campuses also have cafeterias which provide hot meals and light snacks. For detailed hours of operation you may contact the Food Services at 675-3111, ext. 4250. The York-Eglinton Centre and Queensway "C" building are serviced by vending machines dispensing beverages and snacks.

Caps, a pub and deli located at the North Campus, is open to all Humber College students from Monday to Friday. Entertainment in scheduled regularly.

Students With Special Needs

Students who will require special services in order to participate in the learning experiences offered by Humber College must make known their special needs as early as possible to the Admissions or Counselling Office so that we may determine if appropriate accommodations can be arranged. All campuses are fully accessible. Arrangements are possible for note takers, readers and other services that may be required to support the learning process.

Housing

If your decision to attend Humber involves a move to Toronto, the process of finding suitable accommodation can be made much easier by taking the advice of experienced student "home hunters".

1) Be organized
2) Start your search early
3) Use Humber's Housing Registry

Humber's Housing Registry has listings for rooms in houses/apartments, self contained flats, some apartments, houses and a "roommates wanted" list. Our staff is friendly and knowledgeable, and can help familiarize you with your options. We can advise you on such things as the location of the accommodation, transportation routes, rental costs, shopping areas, and MORE! We can take some of the guesswork out of finding a place to live.

Telephones are available for use during your search as well as numerous brochures with information and tips to make your stay in Toronto enjoyable.

For information, call the Office of Student Affairs, Room A137, Student Centre, (416) 675-5053.

Campus Stores

The North, Lakeshore, Queensway and Keelesdale campuses all have bookstores where you can purchase textbooks, supplies, candy and tobacco. There is a post office located in the North campus bookstore.

Placement Services

Finding a job takes hard work and determination. Although no one can find a job for you, we can help. Throughout the year the Placement Office posts hundreds of summer, part-time and career-oriented jobs.

When you come to the Placement Office, the staff can give you tips on job search and interview techniques and writing effective letters and resumes. The College also provides on-campus interviewing facilities.

With our assistance you can be one of the 90% + Humber students who find employment every year.

Each campus has a Placement Office. For information on job opportunities or services available call or drop by the office serving your campus.

North 675-5028 C133
Lakeshore 252-5571 A120
Queensway 252-9441
Keelesdale 763-5141

Transportation

All Humber College campuses can be reached by public transportation. For more details see the map in the back.

In addition, Humber has its own buses for inter-campus travel. The distinctive black and white buses travel to the North, Lakeshore and Osler campuses from the Islington Subway station and the Osler campus residence. You can get on a Humber bus at various points along one of the two routes.

Schedules, passes and tickets are all available at the Hawk Shop on the North Campus or at Osler Campus.

If you drive, there is parking at all campuses except Osler and York-Eglinton. You will have to buy a parking sticker at the Bookstore or pay by the day.

Peer Tutoring

As a service to the students who are having difficulties in some courses, the Counselling Department has set up a system of peer tutoring. A successful student volunteers assistance in a specific course to a student who needs additional help on a personal basis.

Library Services

The Learning Resource Centre at each campus is well stocked with books, magazines, newspapers, audio-visual materials, and several other reference sources. These will be helpful when you are ready for your course assignments, essays and reports. You may wish to browse through the collection simply for personal enjoyment. The audio-visual equipment and materials will add professionalism to your presentations.

Your student identification card will be affixed with a special barcode that will entitle you to borrow LRC materials. Please treat it like a credit card as you will be responsible for any items borrowed on your card.

Special Needs Learning Materials

Humber College has a new service to provide Special Needs Learning Materials. Students requiring textbooks transcribed onto tape, or BRAILLE may contact the North Campus or Lakeshore Campus LRC.

Post-Secondary Academic Regulations

The following regulations apply to all credit courses and programs at Humber College. Students are reminded that it is their personal responsibility to be familiar with the academic regulations. Divisions may have specific supplementary regulations that will be available at time of registration. If students are in doubt about any aspect of the Regulations, they should consult the office of their Divisional Dean.

1. Program of Study

A program of study prescribes the number and types of courses, including Communications and General Studies, leading to a College certificate or diploma. Upon payment of the prescribed tuition fees (exclusive of any additional program costs), a duly registered student is entitled to receive instruction to the maximum number of courses as set out in the official program of studies for each semester of the program leading to a college postsecondary certificate or diploma in which he/she has enrolled. Should a student wish to take one or more supplementary credit courses, to repeat a course taken previously, or be required to take remedial activities additional tuition fees will be charged for each course beyond the established number of courses/credits for the prescribed semester.

2. English Communications Courses

English Communications courses are designed to ensure that a student has obtained an adequate level of communication skills in listening, speaking, reading and writing. Students will be required to complete Communications 1 and 2 prior to graduation, unless granted an Exemption in one or both of these required courses.

3. Remedial Activities

Students who demonstrate that they are functioning below an acceptable level in English and/or Mathematics may be required to take Language Skills and/or participate in remedial mathematics activities in addition to the normal Communications and Mathematics courses in their program.

4. General Studies

General Studies courses are those that are designed to broaden a student's understanding of the social and cultural environment in which he/she will be living and working after graduation from the College.

Students are generally required to complete four (4) General Studies courses. Certain specific programs may require their students to study fewer than four General Studies courses. Such information will be specified in the program of study.

5. Course Outlines and Evaluation

At the beginning of each semester, students will receive from each instructor a course outline containing the necessary pre-requisite courses, the objectives of the course, the faculty member's expectations in regard to student performance and attendance, and the evaluation to be employed.

The evaluation process will normally be progressive; that is, by a series of written and oral or other assignments throughout the semester. A comprehensive final examination may be part of the evaluation in each course or program.

In cases where a course outline does not specifically offer a method of making up late assignments and/or missed tests, the failure to write tests or miss assignment deadlines may result in a mark of zero (0) for the activity.

6. Advanced Standing

Advanced Standing is awarded when a student is granted credit for work completed which is equivalent in content to work covered in the course in question, and no other course needs to be substituted.

Students seeking Advanced Standing must provide certified transcripts, course outlines, and/or other documentation or proof to the Registrar's Office. Students will be given Advanced Standing by the Registrar, on the recommendation of the appropriate Division. Advanced Standing may be granted under the following conditions:

(a) Students who have successfully completed certain Grade 13 or Ontario Academic Credit courses and/or postsecondary courses may receive Advanced Standing in all equivalent courses, providing they have attained at least a grade of 60% or equivalent in that course.

(b) Students who transfer from one Humber College program to another will be given credit in all courses common to both programs.

(c) The College may grant Advanced Standing for relevant experience comparable to certain courses of study or "units of learning". Advanced Standing is granted only for demonstrated ability to meet a "pass" standing in the knowledge and skills objectives of specific courses or units of learning. The assessment of an applicant's competencies in specified knowledge and skills objectives may employ a variety of techniques including, but not limited to, oral and/or written tests, essays, portfolios, transcripts from other institutions and references. Where Advanced Standing is approved, the student will be informed, in writing, by the Office of the Registrar.

A grade of exempt will be recorded for courses in which Advanced Standing has been granted and they will not count toward the computation of the final weighted average. It is a student's obligation to apply for advanced standing through the Office of the Registrar.

Where an exemption is granted, a student may be permitted by the appropriate divisional Dean to take an alternate course without additional cost. The alternate course may only be taken in the semester where the exemption applies.

7. Aegrotat Standing

Aegrotat Standing applies to those students whose performance, over a significant proportion of the course(s), was fully satisfactory but where, because of personal reasons, such as illness, the student was unable to complete the course. In the case of illness, the student is required to provide the Dean with a medical certificate attesting to the personal illness. Courses in which aegrotat has been granted will not count toward the computation of the final weighted average. Aegrotat Standing would be granted by the Registrar to a student on the recommendation of the appropriate Dean.

8. Audit

Where applicable a student may audit a course. The request to audit a course must be submitted at the time of registration for that course. Students who are auditing courses will not be evaluated. The normal fee applies.

9. Full-Time/Part-Time Status

(a) Courses/Credits

A student is considered to be a full-time student if they are officially enrolled in at least 66 2/3% of the courses or 70% of the credits prescribed for their current semester in their current program. (Note: The requirements for full-time status are higher for the purposes of claiming OSAP - See your Financial Aid Officer for details).

Post-Secondary Academic Regulations (cont'd.)

(b) Tuition Fees

A student will be charged $1.25 per credit hour enrolled up to $310.00. Should a student wish to take one or more supplementary courses beyond the maximum, additional tuition fees will be charged.

10. Withdrawal

(a) Voluntary

A student may withdraw from any course without academic penalty up to ten (10) college days after the recording of the mid semester grade. Regarding all other courses this deadline date is the midpoint of the course. (eg. CL courses). Procedures for withdrawal from a program in whole or in part, are initiated with the Registrar's Office. During the withdrawal procedures students will be required to speak with their Chairman or Dean.

(Note: Full-time status may be jeopardized if students drop too many courses. See item 10).

(b) Compulsory

A student may be required to withdraw from the College, or a program for "just cause". Included in "just cause" is consistent failure to meet the objectives of the College, program or course, repeated inappropriate classroom/lab behaviour, failure to pay fees, submission of false documents or information for admission purposes etc.

(c) A student will be informed of their withdrawal from the course or program.

(d) The faculty may ask a student to leave a class if the student's behaviour interferes with the learning process. A dismissal from class will be brought to the attention of the appropriate Academic administrator by the faculty.

(e) Application for Refund

A refund for a course or program will be issued only if a student applies in writing to the Office of the Registrar on the close of business on or before the tenth school day after the start date of the course or program.

(Certain courses that start later and/or are condensed may have different refund periods. See the evening calendar for details).

11. Transfers

Any student who wishes to transfer from one program to another must apply to the Registrar's Office. The normal admission requirements and order of priority may apply to admission to the new program.

12. Readmission

Any student who has been withdrawn from a program and wishes to reapply for that or another program is subject to (a) the readmission policy of the program involved and (b) the full admission requirements for that program.

13. Student Grading System

The Grading System for evaluating student performance is as follows:

(a) Marks will be reported in percentages.

(b) A pass in each course will be sixty (60) percent.

(c) Special grades of AUDIT, AEGROTAT and EXEMPT are described separately in these regulations.

(d) Where a student repeats a course and achieves a higher grade, the previous grade will be deleted from his/her transcript but will remain in the student's comprehensive record. (used for internal purposes only).

14. Probationary Status

Students who do not meet the total admission requirements or students whose general performance is "unsatisfactory" may be classified as "probationary". Probationary Status may involve the requirement to complete specific remedial activities. If their performance is "unsatisfactory" at the end of the probationary period, they may be asked to withdraw from the program or counselled to consider other ways of continuing their education. A Probationary Student will be notified in writing, of that status by the appropriate Dean.

15. To Graduate

To Graduate from a program, the following conditions must be satisfied:

(a) Students must have taken at least twenty-five (25) percent of their credits for the program at Humber College.

(b) Students must have successfully completed the requirements of the program in effect at the time of graduation unless alternate arrangements have been approved by the Dean, in writing. This will include any changes made to advanced semesters while the student is "in progress" in a program but would not include changes in semesters that have already been completed. See Item 16(c) regarding the interruption of full time studies.

(c) Students who interrupt their full-time studies and return at a later date will be required to meet the program requirements in effect at the time of their return to the College. Also, students who have interrupted their studies will not be eligible to graduate from a program that is no longer offered by the College unless alternate arrangements have been approved by the Dean in writing.

(d) Students who achieve an 80% or better weighted average graduate with honours.

16. To Participate in Convocation Ceremonies

A student must apply to attend the Convocation Ceremony by completing an application to Convocate form available from the Registrar's Office. A fee of $10.00 is charged. The form must be completed 7 weeks prior to the date of convocation.

Those who do not attend convocation will have their diplomas or certificates mailed after the convocation.

17. Academic Awards

Academic awards are presented each year. The criteria for these vary from award to award and may be obtained from the Awards Officer. Where this award is based on an average of the grades earned, a maximum of two exemptions is allowed.

18. Plagiarism and Cheating

Plagiarism is the act of submitting as your own material which is in whole or in substantial part someone else's work. Students are expected to acknowledge the sources of ideas and expressions they use in essays. Failure to do so is dishonest and subject to serious academic penalty up to and including suspension. Submission of a term paper written in whole or part by someone other than oneself, or copying of an answer or answers of another student in any test, examination or assignment also consititutes plagiarism.

Cheating on exams, tests etc. is also subject to an academic penalty up to and including suspension.

19. Student Appeal Procedure

Where a student disagrees with a grade received or any decision resulting from the academic regulations, the following informal procedure should be followed before making a formal appeal:

(a) Discuss the matter with the faculty member in an attempt to resolve the disagreement.

(b) If the matter is not resolved, discuss the problem with the Program Coordinator and if still not acceptable, with the Chairman.

(c) The student will discuss the unresolved matters with the Dean.

If the student is still not satisfied, a formal Appeal in writing may be initiated to the Registrar. Such documentation must be completed within six (6) weeks from the end of the course. Full details on the appeal procedures are available in the Registrar's Office.

20. Supplementary Examination

(a) Applicable policies can

be obtained from the office of the Divisional Dean.

(b) Course outlines will reflect the policy of Supplemental Examinations.

21. Failure to Pay Fees or Other Indebtedness

Students with outstanding fees or other indebtedness will not be eligible to receive any grades, transcripts, certificates or diplomas until all amounts owed to the College are paid.

A complete outline of the selection procedures used for each post-secondary parogram is available in the Admissions office at each campus. This document also outlines the physical demands of each program.

Please feel free to contact the Directors of Admissions for details.

These regulations are in effect for the academic year 1987/88.

The College reserves the right to change curriculum as necessary. (See Item 16 regarding requirements.)

Post-Secondary Calendar of Events 1987/88

Fall 1987	
September 1	New Student Orientation – Business
September 2	New Student Orientation – Health Sciences & Human Studies
September 2	New Student Orientation – Lakeshore – All Divisions
September 3	New Student Orientation – Technology & Hospitality, Tourism & Leisure Management
September 4	New Student Orientation – Applied & Creative Arts
September 7	**Labour Day – College Closed**
September 8	Start of Semester
September 14-18	First week of Classes Continuous Learning
September 18	Last day to submit course selection cards
September 22	Deadline for Refund Application
October 12	**Thanksgiving – College Closed**
October 30	Mid-semester grades processed
November 13	Last day to drop a course without academic penalty
November 23	C.L. Registration begins (Winter '88)
December 7	**Fees due for Winter semester**
December 23	Last Day for Classes/Tests/Examinations
December 24	Final grades processed 12:00 noon
December 24	Last day to apply to attend Convocation
December 24 at 12:00 noon to January 4, 1988 at 8:30 a.m.	**Christmas Break – College Closed**
Winter 1988	
January 4	Registration Week
January 11	Start of Semester*
January 18-22	First week of Classes of Continuous Learning
January 22	Deadline for Refund Application
February 20	Convocation Summer and Winter 1987 graduates
February 26	Mid-semester grades processed

Post-Secondary Calendar of Events 1987/88 (cont'd.)

February 29 to March 4	**Reading Week**
March 18	Last day to drop a course without academic penalty
April 1	Good Friday – College Closed
April 8	**Fees due for Summer semester**
May 4	Last day of classes/tests/examinations
May 6	Final grades processed 12:00 noon
May 6	Last day to apply for June Convocation
Spring 1988	
May 9	Start of Spring Semester
May 9-13	First week of Classes of Continuous Learning
May 18	Deadline for refund application
May 20	Last day to submit course selection cards
May 23	**Victoria Day – College Closed**
Week of June 15-18	Convocation
June 24	Mid-semester grades processed
July 1	**Canada Day-College Closed**
July 8	Last day to drop a course without academic penalty
July 8	**Fees due for Fall Semester – freshmen students**
July 22	**Fees due for Fall semester – returning students**
August 1	**Civic Holiday – College Closed**
August 24	Last day of classes/tests/examinations
August 26	**Final grades processed 12:00 noon**
September 5	**Labour Day – College Closed**

Waiver: Dates may change at the discretion of the College

Notes 1) *Different dates may apply for Federally sponsored and accelerated semester students. See your Program Coordinator.

Applied and Creative Arts Programs

Advertising and Graphic Design

North Campus

Four semesters beginning September

Humber's Advertising and Graphic Design Program provides a firm foundation of drawing, design and rendering techniques that a talented young designer requires.

Students are given working, studio-related experience in the design of graphics for newspapers, magazines, direct mail, outdoor advertising, corporate image, packaging, point-of-purchase, television and computer design graphics. The program involves illustration, cartooning, photography, lettering and typography in layout, art and assembly for the various methods of reproduction and printing.

In two years you will learn what you need, to develop into a creative and competent graphic designer. We will help you realize your ability to put ideas on paper through courses in design, drawing and typography, in a way that will appeal to your future clients. The integration of photography and computer graphics will give you two more skills and an introduction to the roles played by computer technology in visual communications. To create practical concepts, you will need to know the basics of reproduction and the current methods in use in the graphic art field. To achieve this knowledge, practice is essential, requiring dedication and hard work.

The Graphic designer's concern is the promotional aspect of social need and future technologies. Graphic designers interact with industrial designers who give form to the product and with package designers who create the container. The graphic designer creates the visuals to sell the product.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- attendance at an interview with presentation of a portfolio made up of 10 or more pieces and a sketch book to demonstrate your design and drawing skills and establish your level of competency. Any media artwork can be presented
- applicants will be assessed on their ability to draw, their sense of design and on an indication of good craftsmanship

Job Opportunities

The program prepares the student for employment in graphic design studios, advertising agencies, TV graphic studios, printing companies, magazine/newspaper/book publishers, point-of-purchase, direct mail, package design units and in computer business graphics. Freelance activity provides further opportunity. A developing employment area is the graphic production and in-house departments in corporations and institutions.

Additional Costs

An initial investment of $600+ for art equipment and supplies is necessary. Throughout the program students should be prepared to spend approximately $200 per semester in replacing consumable supplies. In addition a manual 35mm camera with variable shutter speeds and light meter, build in or separate is required.

Curriculum

Semester 1 (24 hours/week)	Credits
470-101 Graphics 1	2
470-107 Typography 1	3
470-108 Design 1	3
470-111 Studio Methods 1	2
243-115 Advertising 1	1
470-106 Photography for Graphics 1	3
470-102 Perspective 1	3
941-115 Communications 1	4
General Studies	3

Semester 2 (24 hours/week)	Credits
470-201 Graphics 2 *Pre-Req:* 470-101 Graphics 1	2
470-207 Typography 2 *Pre-Req:* 470-107 Typography 1	3
470-208 Design 2 *Pre-Req:* Design 1	3
470-211 Studio Methods 2 *Pre-Req:* 470-111 Studio Methods 1	2
243-215 Advertising 2	1
470-206 Photography for Graphics 2 *Pre-Req:* 470-106 Photography for Graphics 1	3
470-202 Perspective 2 *Pre-Req:* 470-102 Perspective 1	3
941-116 Communications 2	4
General Studies	3

Semester 3 (26 hours/week)	Credits
470-301 Graphics 3 *Pre-Req:* 470-201 Graphics 2	8
470-307 Typography 3 *Pre-Req:* 470-207 Typography 2	3
470-109 Illustration 1 *Pre-Req:* 470-202 Perspective 2	4
470-130 Mechanicals 1 *Pre-Req:* 470-211 Studio Methods 2	3
470-302 Packaging 1	3
470-305 Computer Graphics 1	2
General Studies	3

Semester 4 (26 hours/week)	Credits
470-401 Graphics 4 *Pre-Req:* 470-301 Graphics 3	8
470-407 Typography 4 *Pre-Req:* 470-307 Typography 3	3
470-209 Illustration 2 *Pre-Req:* 470-109 Illustration 1	4
470-230 Mechanicals 2 *Pre-Req:* 470-130 Mechanicals 1	3

Advertising and Graphic Design (cont'd.)	
470-402 Perspective 3 *Pre-Req:* 470-202 Perspective 2	2
470-405 Computer Graphics 2 *Pre-Req:* 470-305 Computer Graphics 1	2
General Studies	3

Arts Administration (pending approval)

Humber College plans to offer a new program in Arts Administration.

The Arts is a growing industry in Canada.

Statistics show the entire Arts industry is this country's ninth largest business sector and is the fourth largest employer. Art is big business. For these businesses to continue to grow and succeed in today's economy, it is important that they be responsibly administered.

This program will prepare you for a position as an Arts Administrator. The student will study subjects such as Advanced Theatre History, Production, Fund Raising, Public Relations and Marketing. Financial Management, Board and Personnel Management and Legal Contracts. There will also be an internship component to the program that will provide the student with the opportunity to put classroom theories and principles into practice in a working situation.

For further information, please call (416) 675-3111, extension 4532. We would be pleased to discuss this program with you.

Audio-Visual Technician

North Campus

Four semesters beginning September

The rapid increase in the use of all communication media for educating, marketing, and training has created a demand for knowledgeable individuals skilled in the use, creation, presentation, and distribution of audio-visual packages. Students learn about computers, still photography, television, multi-image slide sound productions, scripting, lighting, graphics and electronics. Humber's challenging and practical Audio-Visual Technician Program offers two options: production and technical. Both are supported by active involvement in the AV industry.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- attendance at an orientation session to discuss the applicant's knowledge of the industry and to identify the part he/she would like to play in this field

Job Opportunities

Audio-visual graduates will find work in industry, marketing and sales organizations, government ministries and service commissions, educational institutions, libraries, hospitals, media production corporations and closed-circuit television facilities.

Depending on the services offered and the degree of task specialization, most of these employers would require a graduate with either strong production capabilities or thorough audio-visual technical skills.

To prepare for these demands, students obtain on-the-job training during their internship field work in the last semester.

Curriculum

Technical Option

Semester 1 (24 hours/week)	Credits
479-117 AV Media Applications, Introduction	3
479-126 Computer Systems, Intro.	3
479-121 Photography 1	3
479-123 Television Production 1, Introduction	4
380-197 AV Mathematics	2
266-052 Basic Keyboarding	3
941-115 Communications 1	4
350-201 AV Electronics 1	3

Semester 2 (25 hours/week)	Credits
479-217 Computer-Controlled AV Equipment *Pre-Req:* 479-117 AV Media Applications, Introduction, 479-121 Photography 1, 479-126 Computer Systems, Intro.	2
479-226 Computer Graphics Tech. & Applications *Pre-Req:* 479-126 Computer Systems, Intro.	3
479-221 Photography 2 *Pre-Req:* 479-121 Photography 1	3
479-223 Television Production 2 *Pre-Req:* 479-123 Television Production 1, Introduction	4
350-202 AV Electronics 2 *Pre-Req:* 350-201 AV Electronics 1, 380-197 AV Mathematics	3
380-198 AV Applied Physics *Pre-Req:* 380-197 AV Mathematics	2
479-218 Audio Recording Techniques 1 *Pre-Req:* 479-117 AV Media Applications, Introduction, 380-197 AV Mathematics	2
General Studies (2)	6

Semester 3 (25 hours/week)	Credits
479-122 Graphic Applications for Media *Pre-Req:* AV Technician Program, Semesters 1 & 2	3

Audio-Visual Technician (cont'd.)

479-317 AV Production Workshop, Sponsored Projects *Pre-Req:* Audio Visual Technician Program, Semesters 1 & 2	2
479-326 Computer Visual Production *Pre-Req:* 479-226 Computer Graphics Tech. & Applications	3
479-323 TV Production 3 *Pre-Req:* 479-223 Television Production 2	4
479-300 AV Electronics 3 - Tutorial *Pre-Req:* 350-202 AV Electronics 2	3
General Studies (2)	6
941-116 Communications 2	4

(All program courses are prerequisite for Work Experience Fieldwork)

Semester 4 (24 hours/week)	Credits
479-124 Work Experience Fieldwork *Pre-Req:* Three semesters of Audio-Visual Technician Program - Technical Option	24

Production Option

Semester 1 (24 hours/week)	Credits
479-115 Scripting 1	3
479-117 AV Media Applications, Introduction	3
479-126 Computer Systems, Intro.	3
479-121 Photography 1	3
479-123 Television Production 1, Introduction	4
380-197 AV Mathematics	2
266-052 Basic Keyboarding	3
941-115 Communications 1	4

Semester 2 (24 hours/week)	Credits
479-215 Scripting 2 Workshop *Pre-Req:* 479-115 Scripting 1	2
479-217 Computer-Controlled AV Equipment *Pre-Req:* 479-117 AV Media Applications, Introduction, 479-121 Photography 1, 479-126 Computer Systems, Intro.	2
479-226 Computer Graphics Tech. & Applications *Pre-Req:* 479-126 Computer Systems, Intro.	3
479-221 Photography 2 *Pre-Req:* 479-121 Photography 1	3
479-223 Television Production 2 *Pre-Req:* 479-123 Television Production 1, Introduction	4
General Studies (2)	6
380-198 AV Applied Physics *Pre-Req:* 380-197 AV Mathematics	2
479-218 Audio Recording Techniques 1 *Pre-Req:* 479-117 AV Media Applications, Introduction, 380-197 AV Mathematics	2

Semester 3 (25 hours/week)	Credits
479-122 Graphic Applications for Media *Pre-Req:* AV Technician Program, Semesters 1 & 2	3
479-125 Lighting Applications *Pre-Req:* A.V. Technician Program - Production Option, Semesters 1 & 2	3
479-317 AV Production Workshop, Sponsored Projects *Pre-Req:* Audio Visual Technician Program, Semesters 1 & 2	2
479-326 Computer Visual Production *Pre-Req:* 479-226 Computer Graphics Tech. & Applications	3
479-323 TV Production 3 *Pre-Req:* 479-223 Television Production 2	4
General Studies (2)	6
941-116 Communications 2	4

(All program courses are prerequisite for Work Experience Fieldwork)

Semester 4 (24 hours/week)	Credits
Work Experience Field Work *Pre-Req:* Three semesters of Audio Visual Program - Production Option	24

Child Care Worker

Lakeshore Campus

Six Semesters Beginning September

(also available on a part-time basis)

This program is for emotionally mature people who can easily form relationships and who are eager to grow both professionally and personally. The program prepares the student to work competently with disturbed children and adolescents (4 to 18 years old) and their families.

Disturbed children have behavioural and emotional difficulties that affect their ability to function in school, at home or in their community. This may result in their involvement with Children's Aid Societies, special education classes, residential treatment centres, psychiatric hospitals, group homes, family service agencies and correctional services. It is in these places that Child Care Workers put their skills into practice.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- grade 12 English, general level
- medical certificate of health
- written documentation from employers of at least 80 hours of paid or volunteer experience with normal or disturbed children or adolescents in a treatment agency, co-op program, summer camp, group home, etc. This should be completed prior to March 1. Babysitting experience is not eligible.

Child Care Worker Program (cont'd.)

- attendance at an orientation session which will include a group interview

Job Opportunities

Graduates from our program have found employment in a number of different areas: including Children's Aid Society group homes, in residential and day-treatment programs in Children's Mental Health Centres and in Observation and Detention facilities for young offenders. We are extremely proud of the excellent placement record of our graduates. Many of our graduates move into supervisory positions after two or three years. Others develop their skills so that they can effectively work with families, groups or as consultants to teachers.

From the second semester till the end of this program, you will complete 1,472 hours of field placement. You should budget travel expenses for these placements which will be in and around Metro Toronto. Supplies will cost you close to $300.00 per semester.

Curriculum

Semester 1 (24 hours/week)		Credits
113-101	Human Growth & Development 1	4
113-113	Behavioural Foundations 1	3
113-111	Community Services	2
113-112	Introduction to Professional Skills	2
113-109	Theory & Practice of Therapeutic Act. 1	3
	General Studies (2)	6
	Communications 1	4

Semester 2 (28 hours/week)		Credits
113-201	Human Growth & Development 2	4
113-208	Behavioural Foundations 2	3
113-207	Theory & Practice of Therapeutic Act. 2	3
113-104	Integrative Seminar 1	2
113-206	Field Work 1	12
	Communications 2	4

Semester 3 (26 hours/week)		Credits
113-313	Psychopathology of Childhood 1	4
113-302	Family Dynamics 1	2
113-312	Child Care Work Methodology 1	4
113-315	Counselling Skills 1	2
113-314	Integrative Seminar 2	2
113-310	Field Work 2	12

Semester 4 (29 hours/week)		Credits
113-412	Psychopathology of Childhood 2	4
113-401	Family Dynamics 2	2
113-410	Child Care Work Methodology 2	4
113-413	Counselling Skills 2	2
113-411	Integrative Seminar 3	2
113-409	Field Work 3	12
	General Studies	3

Semester 5 (27 hours/week)		Credits
113-508	Treatment Philosophies 1	2
113-513	Family Intervention 1	2
113-307	Group Theory 1	2
113-610	Human Sexuality	3
113-515	Integrative Seminar 4	2
113-516	Field Work 4	16

Semester 6 (26 hours/week)		Credits
113-608	Treatment Philosophies 2	2
113-613	Farnily Intervention 2	2
113-406	Group Theory 2	2
113-512	Community Intervention	2
113-611	Integrative Seminar 5	2
113-612	Field Work 5	16

Community Worker Program*

Lakeshore Campus

(Four semesters beginning September (also available on a part-time basis daytime only)

***Also see Social Service Worker. It is possible with these programs to attend college for three years to receive two diplomas: one in Community Work and one in Social Social Service Work.**

Are you interested in helping people to help themselves?

Community Development is the process by which people in various communities organize themselves to identify and obtain satisfaction of their special needs. A Community Worker assists communities in this process, for example by bringing together single parents in a low-income area to set up an activity centre for themselves and their preschool children, or by helping immigrant families gain full access to social, community and educational services.

The two-year Community Worker Program will provide you with the knowledge and skills necessary to be a competent community worker and offers the opportunity to acquire experience in community settings. You will learn how to organize and lead groups, how to identify and train community leaders, and how to problem-solve in groups.

You will be encouraged to develop self-confidence, assertiveness and awareness of people from different social and ethnic backgrounds. You will improve your speaking, written and media communications skills.

Community Worker Program* (cont'd.)

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- grade 12 English, general level
- medical certificate of health
- a minimum of 50 hours of documented volunteer experience in a recognized human service and a letter of reference from someone within this organization
- a second letter of reference from a person of your choice
- attendance at an interview/-orientation session

Job Opportunities

Our graduates have found that their field placements have given them valuable experience and provided them with contacts in the field. Jobs exist in the outreach programs of both government and non-government social and community services, with community-sponsored housing developments, ethnic and immigrant aid organizations, community information centres, home support services for the elderly, self-help organizations of the handicapped, youth work projects, store-front legal clinics, women's services, special government-funded projects in the community, as well as in a variety of other related community settings.

A community worker needs initiative and the ability to work and act independently both to find and develop jobs in the community, as well as to do the job itself. Working to help communities help themselves can be a demanding job - but not just a job - it can also be personally satisfying and rewarding. Because you will often work for small non-profit organizations, you should not expect high salaries.

Field Trip

The single most important element of the community worker program is field placement. For 14 hours a week in the 2nd, 3rd and 4th semesters, you will work in the community with a variety of agencies and community organizations.

These field experiences will be evaluated by staff and by field supervisors so that you will become as effective as possible in community settings over the two years of the program. In each semester, an integrative seminar provides the opportunity to integrate course work with actual experience in the field. By sharing and analyzing these experiences with other students and program staff, you will acquire the knowledge and skills to be an effective community worker.

Curriculum

Semester 1 (24 hours/week)	Credits
123-117 Social Psychology	3
123-118 Urban Sociology	3
123-119 Human Growth and Development	3
123-120 Orientation to Human Services	3
123-121 Information and Referral Skills	3
123-122 Interpersonal Skills	3
123-123 Field Practice Orientation	2
Communications 1	4

Semester 2 (27 hours/week)	Credits
123-222 Field Prac. 1 *Pre-Req:* 941-105 Language Skills	7
123-223 Community Pub. Relations	3
123-227 Integrative Seminar	1
123-224 Group Work Skills *Pre-Req:* 123-122 Interpersonal Skills	3
123-225 Political Process	3
123-226 Interviewing & Counselling Skills 1 *Pre-Req:* 123-121 Information and Referral Skills	3
Communications 2	4
General Elective	3

Semester 3 (23 hours/week)	Credits
123-323 Field Practice 2 *Pre-Req:* 941-102 Communications 1	7
123-324 Research Techniques	3
123-328 Integrative Seminar	1
123-325 Agency Administration & Fundraising	3
123-431 Current Issues in Human Services	3
123-327 Special Needs Populations	3
General Elective	3

Semester 4 (24 hours/week)	Credits
123-426 Field Practice 3	7
123-427 Planning and Evaluation	3
123-428 Community Development	3
123-433 Integrative Seminar	1
123-429 Legislation in Human Services	3
123-430 Volunteer Management	3
123-326 Cross Cultural Skills	3
123-432 Job Search Skills	1

After semester 4 you may choose to go on for two more semesters and achieve a second diploma in Social Service Work providing you meet 3rd year requirements.

Creative Photography

North Campus

Four semesters beginning September

A picture is worth 10,000 words, and today's society is one in which photographs are a major communication tool. If you wish to combine artistic skills with a business sense, photography could be the career for you. The two-year program offers you photographic technology, creative techniques, support skills and

Creative Photography (cont'd.)

practical applied photography training.

You will study lighting, studio and darkroom techniques, theory for black and white and colour photography. The objective of the program is to train you in the many dimensions of the profession: portrait/wedding, architectural, industrial and commercial illustrations.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- attendance at an interview and information session with presentation of an art or photography portfolio. The portfolio may be of colour or black and white prints or colour transparencies
- preparation of an essay as to why photography was chosen as a career
- senior physics, or senior chemistry and business & consumers, grade 11 mathematics, all at the general level are strongly recommended

Job Opportunities

Graduates work in studios, corporations and institutions, and in industry, or become freelance professionals.

Additional Costs

First-year students are expected to bring a 35 mm camera, with 3 lenses, tripod, meter, tank, auxiliary equipment and supplies. A rental package consisting of a 4x5 camera, case and other accessories is made available to the 1st year student. Second year students will have to purchase supplies and equipment that may also cost an additional $2,500.

Curriculum

Semester 1 (23 hours/week)		Credits
480-130	Photography Theory 1	2
480-102	Photography Studio 1	3
480-120	Photography Applied 1	3
480-121	Photography Darkroom Techniques 1	3
480-113	Photography Lighting 1	3
480-103	Elements of Photographic Design 1	2
941-115	Communications 1	4
	General Studies	3

Semester 2 (24 hours/week)		Credits
480-230	Photography Theory 2	2
480-202	Photography Studio 2	3
480-220	Photography Applied 2	4
480-203	Elements of Photographic Design	2
480-221	Photography Darkroom Techniques 2	3
480-213	Photography Lighting 2	3
941-116	Communications 2	4
	General Studies	3

Semester 3 (24 hours/week)		Credits
480-330	Photography Theory 3	2
480-302	Photography Studio 3	3
480-320	Photography Applied 3	4
480-133	Photography Colour Process *Pre-Req:* Successful completion of first year.	4
480-321	Darkroom Techniques 3	3
480-134	Photography - Graphics 1	2
	General Studies	3
480-313	Lighting 3	3

Semester 4 (22 hours/week)		Credits
241-008	Photography - Marketing/Business Management 2	2
480-430	Photography Theory 4	2
480-402	Photography Studio 4	2
480-420	Photography Applied 4	4
	General Studies	3
480-136	A/V Techniques	2
480-137	Professional Studies	3
480-403	Photography Colour Techniques	3

Design Foundation Certificate (pending Ministry approval)

In the Fall of 1988 we are planning a new one-year Certificate Program that will deal with the fundamental aspects of art and design.

Opportunities will be created for students to develop their perceptual and technical skills in drawing and painting, and in the commercial fields of advertising, interior, package and industrial design.

This program will be designed to appeal to students who feel they have a degree of artistic talent, but have had little or no formal art education. At the end of the program each student will have had the opportunity to build a substantial portfolio of his or her own work. With the guidance of our faculty, students will then be in a position to apply for a position to begin a course of study in the visual discipline that most interests them.

Please call the Enquiry Centre at 675-5000 for an update on the status of this new program.

Developmental Services Worker

Lakeshore Campus

Four semesters beginning September

(also available on a part-time basis daytime only)

This program will train you to work with developmentally handicapped people of all ages and functioning levels. You will go through a four-week supervised orientation field placement during the first semester. The two following semesters will give you field work experience in several disciplines and developmental remedial programs in the Metro Toronto community. Your fourth-semester internship will be in community settings and larger government facilities. Over the two years of this program you will learn how to access community resource systems and facilitate personal development on an individual or group basis.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- grade 12 English, general level
- medical certificate of health (OHIP - personal or family coverage - is essential)
- attendance at an interview
- working or volunteer experience with developmentally handicapped

Job Opportunities

Upon graduation you can work in community protective, family care, group home and apartment residential care, in counselling within a provincial facility, in Adult and Educational Training Centres, on projects involving children, young adults and mature people. Some jobs may involve shift work. With a few years of experience you will become supervisor or even program director depending on the size of the organization which employs you. In some positions, you may have to take on training responsibilities for yourself and others.

A successful graduate has a keen interest in the multiple facets of the development of a person. Rather than being dismayed at any delay or deficiency found, the graduate would see an opportunity to assess and prioritize the needs and assist the individual to develop a productive, fulfilling and independent lifestyle with the given potential each person possesses.

Additional Costs

Textbooks for the program will cost $200 to $400 and you may need a video tape cassette or other learning resources. Living and travel expenses during field placement should also be included in your budget.

Curriculum

Semester 1 (28 hours/week)		Credits
112-102	Human Growth & Development 1	3
112-114	Behavior Pathology 1	3
112-105	Intro to Mental Retardation 1	3
112-112	First Aid	1
112-126	Field Practice 1	4
112-125	Field Orientation	3
112-219	Individual Program Planning	2
112-108	Environmental Studies 1	3
112-119	Applied Methods 1	2
	Communications 1	4

Semester 2 (26 hours/week)		Credits
112-202	Human Growth & Dev. 2	3
112-226	Field Practice 2	4
112-207	Intro to Mental Retardation 2	3
112-216	Counselling Tech. 1 (MRC)	2
112-218	Behaviour Pathology 2	3
112-327	Sexuality and Mental Retardation	2
112-310	Behaviour Management	2
	Communications 2	4
	General Studies	3

Semester 3 (22 hours/week)		Credits
112-331	Field Practice 3	4
112-318	Applied Methods 2 *Pre-Req:* 112-119 Applied Methods 1	2
112-330	Environmental Studies 2	3
112-321	Counselling Tech. 2	3
112-213	Sign Language/Blissymbolics	2
112-113	Preventive Health	1
112-322	Child Abuse	1
112-329	Activities for Leisure & Learning	2
112-328	Programming Strategies	1
112-205	Functional Exceptionalities	3

Semester 4 (Internship 18 weeks)		Credits
	NOTE: During this internship the student will do one of the following:	
	a) Rotate every 4 weeks through modular units, or	
	b) Follow DACUM approach with rotation based on age and functional level.	
	Modules:	
112-427	Residential Module	5
112-428	Developmental Education Module	5
112-406	Multi-handicapped Module	5
112-407	Family Care Applied Training Module	5
112-408	Vocational Rehabilitation Training Module	5

Fashion Arts: Modelling, Fashion and Cosmetic Management

North Campus

Four semesters beginning September

Success in fashion, cosmetics, modelling and related careers, requires more than training in skills and techniques to be used on the job. It also depends on the development of a professional attitude to personal appearance, to industry expectations, and to communication skills.

The first year of the program is the same for all students.It is during this year that an awareness of special interests and talents is gained. Knowledge of products and the marketplace provides the background for the management level courses of the second year, in either fashion or cosmetics. In addition, a modelling option is available.

Field trips include fashion shows, cosmetic outlets, photography studios, the wholesale garment industry, and fashion centres within Metropolitan Toronto.

During the two years many guest lecturers from the fashion industry offer seminars to students.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- attendance at an orientation session
- resume outlining:

1. any part-time or full-time work -- especially in fashion, beauty or cosmetics
2. special interests
3. career objective

Job Opportunities

Armed with resumes and carefully prepared professional portfolios, graduates will look for jobs as fashion models or in wholesale agencies, as fashion photography stylists, as cosmetic representatives or product managers, as make-up artists, and as skilled sales and management personnel in both the fashion and cosmetic industries.

Curriculum

Year 1

Fall Semester (23 hours/week)		Credits
133-300	Cosmetic, Beauty and Health Theory 1	4
133-301	Cosmetic Applications and Sales Techniques 1	2
133-302	Basic TV Techniques 1	2
133-303	Wholesale and Retail Fashion Industry 1	2
133-305	Fashion Coordination	2
133-304	Fashion Industry Orientation 1	4
	English Communications 1	4
	General Studies Elective	3

Winter Semester (23 hours/week)		Credits
133-400	Cosmetic, Beauty and Health Theory 2	4
133-401	Cosmetic Applications and Sales Techniques 2	2
133-402	Basic TV Techniques 2	2
133-403	Wholesale and Retail Fashion Industry 2	2
133-405	Fashion and Beauty Promotion	2
133-404	Fashion Industry Orientation 2	4
	English Communications 2	4
	General Studies Elective	3

Year 2 Modelling Option

Fall Semester (23 hours/week)		Credits
133-501	Fashion Modelling Cosmetic Practice 1	2
133-502	TV Commercials 1	2
133-503	Fashion Marketing Techniques 1	2
133-504	Fashion Modelling Employment 1	4
133-506	Modelling and Choreography Techniques 1	4
133-507	Modelling For Fashion Photography 1	4
133-508	Fitness Techniques and Practise 1	2
	General Studies Elective	3

Winter Semester (23 hours/week)		Credits
133-601	Fashion Modelling Cosmetic Practice 2	2
133-602	TV Commercials 2	2
133-603	Fashion Marketing Techniques 2	2
133-604	Fashion Modelling Employment 2	4
133-606	Modelling and Choreography Techniques 2	4
133-607	Modelling For Fashion Photography 2	4
133-608	Fitness Techniques and Practise 2	2
	General Studies Elective	3

Year 2 Fashion and Cosmetic Management Option

Fall Semester (23 hours/week)		Credits
133-550	Cosmetic & Beauty Management 1	4
133-551	Cosmetic & Beauty Practice 1	2
133-502	TV Commercials 1	2
133-503	Fashion Marketing Techniques 1	2
133-552	Fashion & Cosmetics Employment 1	4
133-508	Fitness Techniques and Practise 1	2
133-553	Styling For Fashion Photography 1	4
	General Studies Elective	2

Winter Semester (23 hours/week)		Credits
133-650	Cosmetic & Beauty Management 2	4
133-651	Cosmetic & Beauty Practice 2	2
133-602	TV Commercials 2	2
133-603	Fashion Marketing Techniques 2	2

Fashion Arts: Modelling, Fashion and Cosmetic Management (cont'd.)

133-652	Fashion & Cosmetics Employment 2	4
133-608	Fitness Techniques and Practise 2	2
133-653	Styling For Fashion Photography 2	4
	General Studies Elective	3

Film and Television Production

North Campus

Six semesters beginning September

This skills-oriented program is designed to provide the knowledge and expertise required to undertake many of the technical functions of the two popular media of film and television. Professional production facilities are available for students to apply their artistic and technical abilities to the preparation of film and video-tape for use in cinema and broadcasting. Classroom lectures and hands-on practical experience equip students to become camera operators, switchers, writers, editors, lighting technicians, sound technicians, and production managers. During the third year, students devote most of their time to tape, film, and A.V. productions. Student productions have won acclaim in competitions and at festivals.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- questionnaire, essay, letters of recommendation

Job Opportunities

The fields of film and television are highly competitive, and entry positions in the industry are usually junior. Graduates work in the public and private sectors of television, cable systems, film production houses, audio-visual firms or, with experience, as freelance producers to the industry-at-large.

Additional Costs

$1,000 the first year, $1,500 the second and $2,000 in the third.

Curriculum

Semester 1 (26 hours/week)		Credits
478-100	Script Writing 1	2
478-101	Super-8 Production Workshop 1	4
478-106	Still Photography	3
478-131	Direction 1	2
478-142	Documentary Film Styles 1	2
478-132	Intro to T.V. Production	3
	Communications 1	4
	General Studies (2)	6

Semester 2 (24 hours/week)		Credits
478-133	Film & T.V. Program Formats 1 *Pre-Req:* Documentary Film Styles (minimum of 60%)	2
478-200	Script Writing 2	2
478-201	Super 8 Production Workshop 2 *Pre-Req:* 478-101 Super-8 Production Workshop 1	4
478-206	Still Photography 2 *Pre-Req:* 478-106 Still Photography	3
478-205	T.V. Production/Direction *Pre-Req:* 478-132 Intro to T.V. Production	3
	Communications 2	4
	General Studies (2)	6

Semester 3 (26 hours/week)		Credits
478-134	Production Management 1	2
478-135	Film/TV Directing 1	2
478-137	Sound Recording 1	2
478-138	Post Production Techniques 1 - 16mm	2
478-139	Graphics & Animation 1	2
478-143	16MM Cinematography 1	2
478-300	Script Writing 3	2
478-302	Film, Sound & E.F.P. Workshops	2
478-310	Colour T.V. Production 1 *Pre-Req:* Introduction to T.V. Production 2	3
478-306	Still Photography 3	3
478-311	E.F.P. (TV Workshop)	2
478-305	Sound Recording Post Prod. Workshop 1	2

Semester 4 (27 hours/week)		Credits
478-410	Colour T.V. Production 2 *Pre-Req:* Basic Colour T.V. Production (Theory)	4
478-411	E.F.P. (TV Workshop)	2
478-234	Production Management 2	2
478-235	Film and Television Directing 2	2
478-237	Sound Recording 2	2
478-238	Post Production Techniques 2 - 16mm *Pre-Req:* 478-138 Post Production Techniques 1 - 16mm	2
478-239	Graphics & Animation 2	2
478-243	16MM Cinematography 2	2
478-400	Script Writing 4	2
478-402	Film, Sound & E.F.P. Workshops	2
478-406	Still Photography 4 *Pre-Req:* Still Photography 3	3
478-405	Sound Recording Post Prod. Workshop 2	2

Film and Television Production (cont'd.)

Semester 5 (22 hours/week)	Credits
478-144 35mm Audio Visual Prod. 1	6
478-503 16mm Motion Picture Production 1	6
478-504 Colour T.V. Studio Production 1	6
478-334 Production Management 3	2
478-145 Film & T.V. Camera 1	2
478-332 Directing 3	2
478-340 Sound Recording & Mixing 3 *Pre-Req:* 478-137 Sound Recording 1, 478-237 Sound Recording 2	2
478-341 Post Production 3	2
478-342 Animation 3 *Pre-Req:* 478-139 Graphics & Animation 1, 478-239 Graphics & Animation 2	2
478-505 Script Writing 5	2

Semester 6 (22 hours/week)	Credits
478-244 35mm Audio Visual Prod. 2	6
478-603 16mm Motion Picture Production 2	6
478-604 Colour T.V. Studio Production 2	6
478-434 Production Management 4 *Pre-Req:* 478-334 Production Management 3	2
478-245 Film & T.V. Camera 2	2
478-432 Directing 4	2
478-440 Sound Recording & Mixing 4 *Pre-Req:* 478-137 Sound Recording 1, 478-237 Sound Recording 2	2
478-441 Post Production 4	2
478-442 Animation 4 *Pre-Req:* 478-139 Graphics & Animation 1, 478-239 Graphics & Animation 2	2
478-605 Script Writing 6	2

***Indicates Elective subjects. Third year students will select a MINIMUM of two electives from the 7 subjects listed in semesters 5 and 6. In addition, an additional 4 hours of individual learning per elective is expected. Students may select additional courses with the approval of the Program Coordinator. Each of the third year mandatory courses have major practical thesis projects as requirements, which are completed in student crew format. Each of the elective courses have additional practical projects to be completed both individually and in conjunction with third year thesis requirements.**

Horticulture (Apprenticeship)

North Campus

Basic 8-week course beginning November

Advanced 12-week course beginning January

This intensive program stresses, practical skills through applied study in the college greenhouse, construction laboratory and Humber arboretum. The in-school program is scheduled to match the industry's slower period of November through March.

Admission Requirements

- grade 10 (Ontario)
- applicant must be working in the horticulture industry (landscape maintenance/construction, greenhouse/nursery/garden centres, parks departments, golf courses, arboriculture)
- registration through the local Apprenticeship Branch Office
- minimum 16 years of age
- applicant must be literate in English

Job Opportunities

Skilled labour in areas listed above in the beginning to move on later into jobs with more responsibilities such as foreman or manager.

Curriculum

- Landscape Surveying
- Turf Management
- Plant Identification
- Plant Propagation
- Landscape Maintenance
- Communications
- Introduction to Business
- Landscape Construction
- Small Engine Maintenance
- First Aid and Safety
- Soils
- Entomology
- Greenskeeping

Virtually all costs are funded by CEIC, and the apprentice in College receives unemployment benefits and may be eligible for additional support. You will need work clothes, safety boots, gloves, a hard hat and secateurs.

Basic Course	Credits
610-116 Trade Calculations 1	4
610-117 Trade Practice 1	8
610-118 Trade Theory 1	15
610-114 Trade Communications 1	3

Horticulture (Apprenticeship) (cont'd.)

Advanced Course:	
610-119 Trade Practice 2	9
610-120 Trade Theory 2	18
610-311 Trade Calculations 2	3

Humber Arboretum

The Arboretum stretches for over a mile along the Humber River Valley circling past the North Campus of the College. Here landscape students gain practical experience, working and studying the 300-acre site. Planting, cultivation, turf development, pruning and other landscape projects are all part of the curriculum to ensure that students can put their classroom studies into practice.

The Humber Arboretum also offers an ongoing series of special educational programs, seminars and workshops of interest to the horticultural trades and the community. More detailed information can be obtained from the Director of the Humber Arboretum at 675-5009.

Industrial Design

North Campus

Six semesters beginning September

Look around you ... almost everything you see which is not mother nature's originated as an idea in a designer's mind. Industrial Design is the discipline of giving form to tomorrow's products and environments. So, if you want to combine your creativity, a concern for your environment, a technical interest in how things are made and a desire to improve people's lives, this design program is for you.

To become a well-rounded designer able to shape tomorrow's products, you will need to become familiar with aesthetics, colour, style trends, shapes and materials, as well as manufacturing processes and human factors. You will learn to develop products and furniture for all types of residential, industrial and commercial purposes.

We will help you develop your ability to put ideas on paper (Design Presentations) in a way that will appeal to your clients (Design Applications/-Design Futures).

Form Study and Model Making will help you to visualize future products before they are produced. You will also be introduced to the roles played by computer technology in product development. (Computers and Design).

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- attendance at an interview with presentation of a portfolio made up of samples of sketches, photographs of your hobbies, craft work, art work, school projects, etc. Assessment will be based on the applicant's interests, aptitude and potential in the field of industrial design

Interests and Skills

- ability to transform an idea into practical applications
- strong interest in the arts and in how things work in relation to people
- willingness to work hard, pride in accomplishment and independent mind

Job Opportunities

Design has become important in today's business world. Our graduates find positions at many levels depending on their abilities. Sometimes they work as designers of commercial products, other times, as support staff for the research/-design process. They are also involved in product support (showroom design, model making), product promotion (coordination of brochures and photography), product research (market/consumer reactions), technical work (production planning, quality control, drafting and computer-aided design).

A few years after you graduate, you may work as a product designer for a manufacturer or in a consulting design office. You might design products such as home appliances, sporting goods, hardware, electronic equipment or furniture.

Expected Workload

Quality results have become the standard of this program. Many of these projects have been used to demonstrate the ability and quality of students within the program, both to peers and to potential employers. In order to achieve this level of quality you must be prepared to spend, working on your own time, at least as many hours as you spend in class.

Additional Costs

You can plan on $400-$700 per semester for books and supplies. A $100 deposit on tools will be refunded when you return all the tools in good condition.

Industrial Design relates to other design programs in that all of them develop an inquisitive mind and excellent creative visual skills. The product designer is usually more concerned with the practical aspects of social need, technology, and giving form to new products.

Curriculum

Semester 1 (24 hours/week)	Credits
472-150 Industrial Design 1	4
472-151 Technical Communications 1	3
472-152 Desi gnPresentations 1 (Drawing Fundamentals)	4
472-153 Elements of Design	3
472-154 Modelmaking 1	4
472-155 History of Art	2
Communications 1	4

Industrial Design (cont'd.)

Semester 2 (24 hours/week)	Credits
472-250 Industrial Design 2 *Pre-Req:* Industrial Design 1	5
472-251 Technical Communications 2 *Pre-Req:* 471-151	3
472-252 Design Presentations 2 *Pre-Req:* 471-152	3
472-253 Design Applications *Pre-Req:* 471-153	3
472-254 History of Art 2	2
Communications 2	4
General Studies	3

Semester 3 (18 hours/week)	Credits
472-350 Industrial Design 3 *Pre-Req:* 472-250 Industrial Design 2	5
472-352 Design Presentations 3 *Pre-Req:* 472-252 Design Presentations 2	3
472-351 Materials & Processes 1 *Pre-Req:* 472-154 Modelmaking 1	4
472-353 Design Futures *Pre-Req:* 472-253 Design Applications	3
472-354 Design Graphics *Pre-Req:* 472-253 Design Applications	2
472-355 History of Industrial Design *Pre-Req:* 472-254 History of Art 2	2

Semester 4 (20 hours/week)	Credits
472-455 Industrial Design 4 *Pre-Req:* 472-350 Industrial Design 3	6
472-456 Design Presentations 4 *Pre-Req:* 472-352 Design Presentations 3	4
472-451 Materials & Processes 2 *Pre-Req:* 472-351 Materials & Processes 1	4
472-453 Systems Development 1	3
472-402 Introduction to Computer Grapics and 2-Dimensional Computer Aided Design	2
General Studies	3

Semester 5 (21 hours/week)	Credits
472-550 Industrial Design 5 *Pre-Req:* 472-450 Industrial Design 4	6
472-551 Advanced Materials Applications *Pre-Req:* 472-451 Materials & Processes 2	2
472-552 Systems Development 2 *Pre-Req:* 472-453 Systems Development 1	3
472-553 Thesis 1 *Pre-Req:* 472-450 Industrial Design 4	3
472-554 Ergonomics *Pre-Req:* 472-455 Industrial Design 4	2
472-502 Computers and Design 2	2
General Studies	3

Semester 6 (20 hours/week)	Credits
472-650 Industrial Design 6 *Pre-Req:* 472-550 Industrial Design 5	6
472-654 Thesis 2 *Pre-Req:* 472-553 Thesis 1	6
472-652 Portfolio *Pre-Req:* 472-456 Design Presentations 4	3
472-655 Design Management	3
General Studies	3

Interior Design

North Campus

Six semesters beginning September

Creativity, imagination, drawing skills, interest in living and work spaces are the attributes of the Interior Designer.

Humber's program provides the graduate with the knowledge and skills to analyse and solve interior design problems. It emphasizes such areas as space planning, construction technology, colour theory, drafting and C.A.D., lighting, presentation techniques, art history and materials to ensure that the graduates of Interior Design can become effective members of a professional design team. Our interior design program has an exceptionally high reputation both in Canada and the United States. Humber students participate yearly in major international student competitions and are consistently winning major awards. In the sixth semester students are given opportunities to gain practical experience working in interior design offices.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- attendance at an interview with presentation of a portfolio and a studio skills test. The studio test will consist of one hour of still life drawing and a short essay.
- the portfolio should be comprised of freehand black and white drawings, coloured work, drafting and 1 or 3 dimensional planning, weaving, photography work, etc. related to Interior Design.
- approved applicants may be recommended to upgrade drawing or drafting skills before the commencement of classes.
- grade 12 business & consumers mathematics general level, is recommended

Job Opportunities

Graduates find employment in interior design firms, store planning divisions of major department stores, government agencies (Department of Public Works, Department of Transport, etc.), architectural offices, developers and furniture manufacturers. In addition, opportunities exist for freelancing.

Additional Costs

Approximately $800.00 per academic year.

Curriculum

Semester 1 (25 hours/week)	Credits
473-100 Interior Design	5
473-103 Drafting & Detailing 1	5
473-108 Art History 1	2
473-115 Freehand Drawing 1	3
473-101 Design Theory 1	2
473-112 Colour Theory	2
473-104 Interior Basics	2
Communications 1	4

Semester 2 (28 hours/week)	Credits
473-200 Interior Design 2 *Pre-Req:* Interior Design 1	8
473-203 Drafting and Detailing 2 *Pre-Req:* 473-103 Drafting & Detailing 1	5
473-204 Art History 2 *Pre-Req:* 473-108 Art History 1	1
473-102 Perspective & Rendering 1	3
473-111 Materials 1	2
473-131 Textiles	2
Communications 2	4

Semester 3 (26 hours/week)	Credits
473-300 Interior Design 3 *Pre-Req:* 473-200 Interior Design 2	10
473-307 Drafting & Detailing 3 *Pre-Req:* 473-203 Drafting and Detailing 2	3
473-308 Art History 3 *Pre-Req:* 473-204 Art History 2	2
473-301 Perspective & Rendering 2 *Pre-Req:* 473-102 Perspective & Rendering 1	3
473-211 Materials 2 *Pre-Req:* 473-111 Materials 1	2
473-110 Graphics for Interior Design	2
473-113 Lighting 1	1
General Studies Elective	3

Semester 4 (28 hours/week)	Credits
473-400 Interior Design 4 *Pre-Req:* 473-300 Interior Design 3	10
473-403 Drafting and Detailing 4 *Pre-Req:* 473-307 Drafting & Detailing 3	2
473-408 Art History 4 *Pre-Req:* 473-308 Art History 3	2
473-302 Perspective & Rendering 3 *Pre-Req:* 473-301 Perspective & Rendering 2	3
473-311 Materials 3 *Pre-Req:* 473-211 Materials 2	2
473-401 Basic Photography 1	3
473-132 Professional Practice	2
473-404 Intro to Computer Aided Design 1	2
473-213 Lighting 2	1

Semester 5 (25 hours/week)	Credits
473-501 Interior Design 5 *Pre-Req:* 473-400 Interior Design 4	9
473-507 Drafting & Detailing 5 *Pre-Req:* Drafting and Detailing 4	3
473-402 Perspective & Rendering 4 *Pre-Req:* 473-302 Perspective & Rendering 3	2
473-201 Design Theory 2 *Pre-Req:* Design Theory 1/Interior Basics	2
932-106 Aesthetics	2
General Studies Elective	3
473-114 Mechanical Systems	2
473-504 Computer Aided Design 2 *Pre-Req:* 473-404 Intro to Computer Aided Design 1	2

Semester 6 (18 hours/week)	Credits
473-601 Interior Design 6 *Pre-Req:* 473-501 Interior Design 5	9
473-608 Drafting & Documentation 6 *Pre-Req:* 473-507 Drafting & Detailing 5	3
473-502 Perspective and Rendering 5 *Pre-Req:* 473-402 Perspective & Rendering 4	
473-134 Merchandising	2
473-135 Environmental and Business Studies	2
473-136 In-Office Practice *Pre-Req:* 473-507 Drafting & Detailing 5	8

Journalism

North Campus

Six semesters beginning September

A two-year Diploma Program is also offered for mature students

Most people's lives are affected by the news media: newspapers, magazines, television, and radio. The public has come to expect responsible, ethical reporting and high standards among those who practice journalism.

Humber's Journalism Program provides training in professional skills and instills a commitment to the concept of a free press, a cornerstone in a democratic society. The day is passing when an aspiring journalist without the appropriate education can easily find work in the news media. To meet this need, Humber's program offers a series of courses to develop writing and editing techniques and styles in all media. It is augmented with a selection of academic courses aimed at providing a broad, general education.

In the third year of the Program, students specialize in

Journalism (cont'd.)

the medium of their choice: newspapers, magazines, or broadcasting (radio and television).

Third-year students also acquire first-hand experience as they intern with area media, including daily and weekly newspapers, magazines, radio, television and cable T.V. stations, and wire services.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- applicants should type 35 wpm

Job Opportunities

Humber's Journalism graduates can usually find work in their area of specialization. They work as reporters and copy editors with: community newspapers, local and metropolitan dailies, and magazines. Many work as reporters and announcers in community television and radio stations, as newsletter editors, and in corporate and government information services.

Curriculum

Semester 1 (24 hours/week)	Credits
475-100 Fundamentals of Reporting	6
475-183 Media & Society	2
922-102 Political Science 1 for Journalism	3
941-115 Communications 1	4
962-101 Conversational French 1	3
General Studies (2)	6

Semester 2 (27 hours/week)	Credits
475-106 Photography Basic 1	3
475-133 Radio News 1	2
475-134 T.V. News 1	3
475-201 Newspaper Reporting 1 *Pre-Req:* 475-100 Fundamentals of Reporting	6
Conversational French 2	3
262-124 Journalism Notetaking	3
941-116 Communications 2	4
General Studies	3

Semester 3 (25 hours/week)	Credits
475-104 Newspaper Layout & Design	2
475-136 Editorials/Reviews/Copy Editing *Pre-Req:* 475-201 Newspaper Reporting 1, 475-304 Newspaper Reporting 2	2
475-138 Magazine Writing 1 *Pre-Req:* 475-183 Media & Society	2
475-301 News Photography *Pre-Req:* 475-106 Photography Basic 1	2
475-302 T.V. News 2 *Pre-Req:* 475-134 T.V. News 1	3
475-235 Radio News 2, & Voice Train. *Pre-Req:* 475-133 Radio News 1	2
475-304 Newspaper Reporting 2 *Pre-Req:* 475-201 Newspaper Reporting 1	3
923-103 Sociology for Journalism	3
924-101 Psychology - An Introduction	3
General Studies	3

Semester 4 (21 hours/week)	Credits
475-108 Magazine Layout & Design *Pre-Req:* 475-104 Newspaper Layout & Design	2
475-139 Critique 1	1
475-238 Magazine Writing 2 *Pre-Req:* 475-138 Magazine Writing 1	2
475-333 Radio News 3 *Pre-Req:* 475-235 Radio News 2, & Voice Train.	2
475-334 TV News 3 *Pre-Req:* 475-302 T.V. News 2	3
475-400 Newspaper Reporting 3 *Pre-Req:* 475-304 Newspaper Reporting 2	2
922-206 Political Science 2 for Journalism	3
926-102 Economics for Journalism	3
475-401 Basic TV Production *Pre-Req:* 475-302 T.V. News 2	3

Pathways Newspaper Journalism

Semester 5 (14 hours/week + 20 ILP)	Credits/ILP	
475-181 Labour Reporting/Journalism and the Law	3	
475-500 Press Time 1 *Pre-Req:* 475-400 Newspaper Reporting 3	6	4
475-239 Critique 2 *Pre-Req:* 475-139 Critique 1	1	
475-502 Print Management	2	
933-118 20th Century History	2	
475-505 Print Internship 1 *Pre-req:* Completion of all subjects in Semesters 1-4		16

Semester 6 (8 hours/week + 20 ILP)	Credits/ILP	
475-600 Press Time 2 *Pre-Req:* 475-500 Press Time 1	6	4
475-601 Case Studies	2	
475-605 Print Internship 2 *Pre-Req:* 475-505 Print Internship 1		16

Magazines

Semester 5 (11 hours/week + 16 ILP)	Credits/ILP
475-181 Labour Reporting/Journalism and the Law	3
933-118 20th Century History	2
475-502 Print Management	2

Journalism (cont'd.)

475-180 Logo 1 *Pre-Req:* 475-238 Magazine Writing 2	4
475-505 Print Internship 1 *Pre-req:* Completion of all subjects in Semesters 1-4	16

Semester 6 (6 hours/week + 16 ILP)	Credits/ILP
475-280 Logo 2 *Pre-Req:* 475-180 Logo 1	4
475-601 Case Studies	2
475-605 Print Internship 2 *Pre-Req:* 475-505 Print Internship 1	16

Broadcast Journalism

Semester 5 (15 hours/week + 16 ILP)	Credits/ILP
475-181 Labour Reporting/Journalism and the Law	3
933-118 20th Century History	2
475-506 TV News 4 *Pre-Req:* T.V. News 3/Basic T.V. Production	5
475-507 Radio News 4 *Pre-Req:* 475-333 Radio News 3	3
475-509 Newsroom Management *Pre-Req:* 475-334 TV News 3	2
475-511 Broadcast Internship *Pre-Req:* Completion of all subjects in Semesters 1-4	16

Semester 6 (8 hours/week + 16 ILP)	Credits/ILP
475-601 Case Studies	2
475-611 Broadcast Internship 2 *Pre-Req:* 475-511 Broadcast Internship	16
475-606 TV News 5 *Pre-Req:* 475-506 TV News 4	4
475-607 Radio News 5 *Pre-Req:* 475-507 Radio News 4	2

Journalism for Mature Students

Two-year Diploma Program

The program begins in September. After completing two semesters of classroom work, students will specialize in newspaper, magazine or broadcast journalism and obtain first class experience through a valuable internship program.

For further information, please call the program coordinator, Jim Bard at 675-3111, ext. 4658.

Admission Requirements

- a University Degree, Diploma from a Community College or related experience in the industry. Mature students without these qualifications, will be considered on an individual basis
- attendance at an interview. (In the case of out-of-town students this interview is frequently carried out by the editor of a local paper.) Successful applicants are given advanced standing and enter the second year of the Diploma Program.

Curriculum

Semester 1 and 2 - Advanced Standing

Semester 3 (16 hours/week)	Credits
475-183 Media & Society	2
475-201 Newspaper Reporting 1 *Pre-Req:* 475-100 Fundamentals of Reporting	6
475-134 T.V. News 1	3
475-133 Radio News 1	2
475-106 Photography Basic 1	3

***Plus academic courses as required**

Semester 4 (17 hours/week)	Credits
475-304 Newspaper Reporting 2 *Pre-Req:* 475-201 Newspaper Reporting 1	3
475-235 Radio News 2, & Voice Train. *Pre-Req:* 475-133 Radio News 1	2
475-302 T.V. News 2 *Pre-Req:* 475-134 T.V. News 1	3
475-136 Editorials/Reviews/Copy Editing *Pre-Req:* 475-201 Newspaper Reporting 1, 475-304 Newspaper Reporting 2	2
475-138 Magazine Writing 1 *Pre-Req:* 475-183 Media & Society	2
475-104 Newspaper Layout & Design	2
475-401 Basic TV Production *Pre-Req:* 475-302 T.V. News 2	3

***Plus academic courses as required.**

Newspaper Pathway

Semester 5 (14 hours/week + 20 ILP)	Credits/ILP
475-181 Labour Reporting/Journalism and the Law	3
475-500 Press Time 1 *Pre-Req:* 475-400 Newspaper Reporting 3	6 4
475-502 Print Management	2
475-239 Critique 2 *Pre-Req:* 475-139 Critique 1	1
475-505 Print Internship 1	16
933-118 20th Century History	2

Journalism for Mature Students (cont'd.)

Semester 6 (8 hours/week + 20 ILP)	Credits/ILP
475-600 Press Time 2 *Pre-Req:* 475-500 Press Time 1	6
475-601 Case Studies	2
475-605 Print Internship 2 *Pre-Req:* 475-505 Print Internship 1	16

Magazine Pathway

Semester 5 (11 hours/week + 16 ILP)	Credits/ILP
475-181 Labour Reporting/Journalism and the Law	3
475-180 Logo 1 *Pre-Req:* 475-238 Magazine Writing 2	4
475-502 Print Management	2
475-505 Print Internship 1	16
933-118 20th Century History	2

Semester 6 (6 hours/week + 16 ILP)	Credits/ILP
475-280 Logo 2 *Pre-Req:* 475-180 Logo 1	4
475-601 Case Studies	2
475-605 Print Internship 2 *Pre-Req:* 475-505 Print Internship 1	16

Broadcast Pathway

Semester 5 (15 hours/week + 16 ILP)	Credits/ILP
475-506 TV News 4 *Pre-Req:* T.V. News 3/Basic T.V. Production	5
475-507 Radio News 4 *Pre-Req:* 475-333 Radio News 3	3
475-181 Labour Reporting/Journalism and the Law	3
475-509 Newsroom Management *Pre-Req:* 475-334 TV News 3	2
475-511 Broadcast Internship *Pre-Req:* Completion of all subjects in Semesters 1-4	16
933-118 20th Century History	2

Semester 6 (8 hours/week + 16 ILP)	Credits/ILP
475-601 Case Studies	2
475-611 Broadcast Internship 2 *Pre-Req:* 475-511 Broadcast Internship	16
475-606 TV News 5 *Pre-Req:* 475-506 TV News 4	4
475-607 Radio News 5 *Pre-Req:* 475-507 Radio News 4	2

Landscape Technician/Technologist

North Campus

Four semesters for technician training plus two more for technologist training

This program will provide you with a thorough knowledge of landscape development, site engineering, design layouts, general horticulture and related technology. In-class studies during the academic year, combined with summer work experience and a fifth semester during the summer, give you the opportunity to understand basic horticultural principles and common trade procedures. Business courses are included with landscape courses to provide you with an insight into progressive business practices.

Once you have completed your first year, you will choose either the Landscape Option, or the Interior Plantscape Option.

The third year, aimed at the Technologist focuses on training in construction practices, turf management, plant identification and pathology during a summer semester (July and August). The sixth semester completes your training during the winter preparing you for employment in the landscape industry for mid-April.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- attendance at an interview/-information session
- business & consumers mathematics at the general level is recommended

Job Opportunities

With this diploma and some experience you will be able to assume positions of responsibility with landscape contractors, in nurseries, garden centres, park systems, golf courses and horticultural product companies. After a few years you may wish to form your own landscape company or become manager for a large contracting company, superintendent of a golf course, sales manager for a horticultural supply company, etc.

Additional Costs

Students are required to supply their own construction safety supply boots, hard hats, glasses gloves, etc. in the second and third year of the program.

Curriculum

Semester 1 (23 hours/week)	Credits
330-015 Site Layout & Survey Math 1	3
152-136 Landscape Drawing 1	3
152-137 Applied Soils	3
152-132 Arboriculture 1	2
152-133 Applied Botany	3
152-134 Plant Identification 1	2
Communications 1	4

Landscape Technician/Technologist Program (cont'd.)

	General Studies	3

Semester 2 (23 hours/week)		Credits
923-214	Computer & Society Landscape	4
152-236	Landscape Materials & Techniques	3
152-135	Pest Control	3
152-232	Arboriculture 2	2
152-204	Garden Centre Operation	2
152-234	Plant Identification 2	2
	Communications 2	4
	General Studies	3

Semester 3 (22 hours/week)		Credits
152-301	Site Construction 1	4
152-336	Landscape Design 1	3
	Field Instruction 1	4
152-305	Interior Plantscape Option	4
	or	
152-307	Landscape Option	4
152-308	Floriculture 1	3
152-333	Arboriculture 3 *Pre-Req:* Arboriculture 2	3
	General Studies	3
152-334	Plant Identification 3 *Pre-Req:* 152-234 Plant Identification 2	2

Semester 4 (25 hours/week)		Credits
152-401	Site Construction 2	4
	Field Instruction 2	
152-405	Interior Plantscape Option	4
	or	
152-407	Landscape Option	4
152-408	Floriculture 2 *Pre-Req:* 152-308 Floriculture 1	3
152-433	Arboriculture 4	3
	General Studies	3
152-435	Landscape Design 2	2
152-434	Plant Identification 4 *Pre-Req:* 152-334 Plant Identification 3	2
221-010	Elements of Accounting	4

Semester 5 (21 hours/week) (July-August)		Credits
152-517	Landscape Design & Presentation 1 *Pre-Req:* 152-435 Landscape Design 2	3
152-518	Construction Practices 1 *Pre-Req:* 152-401 Site Construction 2, One option of Field Instruction 2	8
152-534	Plant Identification 5 *Pre-Req:* 152-434 Plant Identification 4	2
152-519	Applied Plant Pathology	3
152-520	Turf Management	3
152-521	Municipal Parks Operations	2

Semester 6 (27 hours/week)		Credits
152-617	Landscape Design & Presentation 2 *Pre-Req:* 152-517 Landscape Design & Presentation 1	3
152-618	Construction Practices 2 *Pre-Req:* 152-518 Construction Practices 1	6
152-634	Plant Identification 6 *Pre-Req:* 152-534 Plant Identification 5	2
241-012	Sales Marketing & Advertising	4
258-001	Insurance & Risks	3
759-103	First Aid & Accident Prevention	1
152-605	Construction Management	4
152-606	Supervision & Management	4

Law and Security Administration

Lakeshore Campus

Four semesters beginning September

This two-year program will prepare you for a career in law enforcement or a related field. Your courses will cover police, security, customs, corrections and private investigation functions. As well you will study the administration of justice in Canada, law enforcement concepts and practices, and the human dimensions involved in this type of work.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- medical certificate of health (due to the strenuous nature of the physical fitness activities in this program a satisfactory medical will be required)
- attendance at an orientation session which will help you understand the employment reality, discuss career opportunities, outline the personal characteristics of a successful candidate and explain the philosophy of the program
- satisfactory performance in an English proficiency test
- English placement test

Interests and Skills

- several law enforcement agencies require specific height, weight and vision standards, good mental and physical health, good moral character and habits, and Canadian or British citizenship

Job Opportunities

Entry-level jobs are security officers, court security, police dispatchers, police station duty operators and correctional officers. After a couple of years, you can aspire to become police constable, security supervisor or customs officer depending on your own abilities.

Curriculum

Semester 1 (23 hours/week)		Credits
124-101	Nature of Crime 1	4
124-102	Introduction to Law	4
934-129	Human Resources Develop. for Law Enf.	3
124-104	Philosophy of Law Enforcement 1	4
124-107	Police Physical Fitness 1	1
124-109	Computers for L.A.S.A.	3
	Communications	3
	Introductory Psychology	

Semester 2 (24 hours/week)		Credits
759-103	First Aid & Accident Prevention	1
124-303	Criminal Legislation 1 *Pre-Req:* 124-102 Introduction to Law	4
124-201	Nature of Crime 2 *Pre-Req:* 124-101 Nature of Crime 1	4
124-108	Security Practices	4
124-302	Criminalistics 1	4
124-207	Police Physical Fitness 2	1
	English Communications 2	4
	Introductory Psychology*	3

Semester 3 (26 hours/week)		Credits
124-704	Crisis Intervention	3
124-406	Criminalistics 2	4
124-401	Criminal Legislation 2 *Pre-Req:* 124-303 Criminal Legislation 1	4
124-304	Field Practice 1	4
124-305	Philosophy of Law Enforcement 2	4
925-203	Racial and Ethnic Group Relations	3
124-307	Police Physical Fitness 3	1
	General Studies	3

Semester 4 (24 hours/week)		Credits
124-110	Politics & Power Structures	3
124-403	Criminology and Corrections	3
124-208	Customs and Immigration Procedures	2
124-202	Criminal Justice Administration	2
924-211	Applied Psychology	4
124-407	Police Physical Fitness 4	1
	General Studies	3

During the second year you will spend at least 80 hours in field placement. The college reserves the right to alter the order of teaching of these subjects. Co-op option may be available 1988.

Music

North Campus

Six semesters beginning September

Unique in Canada, our Music Program has risen to international acclaim. Its renown stems from a dedication to teaching relevant commercial and jazz music, its big bands, recordings, alumni and faculty.

While all students take the same courses in the first year, you may then choose from three major areas: writing, performing or a combination of both. During these three years at Humber, you will participate in musical ensembles and be encouraged to compose original music and arrange existing repertoire for performance.

If you aspire to sing professionally, you will be interested in our dynamic vocal program. Although you will take many of the same courses as the instrumentalists, you will also join vocal jazz ensembles, dance classes, and gain valuable experience by singing with Humber's bands and combos.

Each semester vocalists and instrumentalists receive private lessons.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- an audition on one major instrument (bass, brass, guitar, keyboard, percussion, vocal, saxophone, clarinet, flute)
- Music Theory Assessment

Job Opportunities

Graduates find work in the areas of performing, teaching, arranging, composing and copying.

Curriculum

Semester 1		Credits
137-106	Ear Training 1	2
	Communications 1	3
137-700	Ensemble/Improv. Lecture-1*	4
137-107	Functional Keyboard 1	2
	Major Instrument 1	4
137-101	Major Instrument Workshop 1	2
137-105	Theory 1	4
137-109	World Music 1	2

Semester 2		Credits
137-206	Ear Training 2 *Pre-Req:* 137-106 Ear Training 1	2
	Communications 2	4
137-700	Ensemble/Improv. Lecture-1*	4
137-207	Functional Keyboard 2	2
	Major Instrument 2	4
137-201	Major Instrument Workshop 2	2

Music Program (cont'd.)

137-205	Theory 2	4
137-209	World Music 2	2

After this first common year, students will be taking courses tailored to their major area of study; writing skills, performance or a combination of both.

Semester 3		Credits
137-306	Ear Training 3	2
	Ensembles*	2
	General Studies	3
	Major Instrument 3	4
137-305	Theory 3	2

Semester 4		Credits
137-406	Ear Training 4	2
	Ensembles*	2
	General Studies	3
	Major Instrument 4	4
137-405	Theory 4	2

Semester 5		Credits
	Ensembles*	2
	General Studies	3
	Major Instrument 5	4

Semester 6		Credits
	Ensembles*	2
	General Studies	3
	Major Instrument 6	4
	Music Electives	

***Ensemble Courses and Credits are assigned by the Music Faculty. 144 Credits are required for Graduation. Music Elective and Ensemble courses to a total of 24 credits per semester are to be chosen as listed on Page 5.**

Major Instrument 1:		Credits
137-190	Major Instrument 1 - Bass	4
137-191	French Horn	4
137-192	Major Instrument - French Horn	4
137-193	Major Instrument - Keyboard	4
137-194	Major Instrument - Percussion	4
137-195	Major Instrument - Trombone	4
137-196	Major Instrument - Trumpet	4
137-197	Tuba	4
137-198	Major Instrument 1	4
137-199	Major Instrument - Woodwind	4

Major Instrument 2:		Credits
137-290	Major Instrument 2 - Bass	4
137-291	French Horn	4
137-292	Major Instrument - Guitar	4
137-293	Major Instrument - Keyboard	4
137-294	Major Instrument - Percussion	4
137-295	Major Instrument - Trombone	4
137-296	Major Instrument - Trumpet	4
137-297	Tuba	4
137-298	Major Instrument (Voice) 2	4
137-299	Major Instrument - Woodwind	4

Major Instrument 3:		Credits
137-390	Major Instrument 3 - Bass	4
137-391	French Horn	
137-392	Major Instrument - Guitar	4
137-393	Major Instrument - Keyboard	4
137-394	Major Instrument - Percussion	4
137-395	Major Instrument - Trombone	4
137-396	Major Instrument - Trumpet	4
137-397	Tuba	4
137-398	Major Instrument (Voice) 3	4
137-399	Major Instrument - Woodwind	4

Major Instrument 4:		Credits
137-490	Major Instrument 4 - Bass	4
137-491	French Horn	4
137-492	Major Instrument - Guitar	4
137-493	Major Instrument - Keyboard	4
137-494	Major Instrument - Percussion	4
137-495	Major Instrument - Trombone	4
137-496	Major Instrument - Trumpet	4
137-497	Tuba	4
137-498	Vocal	4
137-499	Major Instrument - Woodwind	4

Major Instrument 5:		Credits
137-590	Major Instrument 5 - Bass	4
137-591	French Horn	4
137-592	Major Instrument - Guitar	4
137-593	Major Instrument - Keyboard	4
137-594	Major Instrument - Percussion	4
137-595	Major Instrument - Trombone	4
137-596	Major Instrument - Trumpet	4
137-597	Tuba	4
137-598	Major Instrument (Voice) 5	4
137-599	Major Instrument - Woodwind	4

Major Instrument 6:		Credits
137-690	Major Instrument 6 - Bass	4

Music Program (cont'd.)

137-691	French Horn	4
137-692	Major Instrument - Guitar	4
137-693	Major Instrument - Keyboard	4
137-694	Major Instrument - Percussion	4
137-695	Major Instrument - Trombone	4
137-696	Major Instrument - Trumpet	4
137-697	Tuba	4
137-698	Major Instrument (Voice) 6	4
137-699	Major Instrument - Woodwind	4

Writing Courses*, Level 2		Credits
137-309	Arranging 3	4
137-409	Arranging 4	4
137-310	Composition 3	4
137-410	Composition 4	4

Writing Courses*, Level 3		Credits
137-509	Arranging 5	4
137-609	Arranging 6	4
137-510	Composition 5	4
137-610	Composition 6	4
137-319	Lead Sheet Arranging 3	2
137-419	Lead Sheet Arranging 4	4
137-511	Orchestration 5	2
137-611	Orchestration 6	2

***Students who choose Writing Courses are strongly advised to take Functional Keyboard Classes beyond the required Level 1 and 2.**

Semester Performance Courses, Level 2		Credits
137-322	Acting for Vocalists	2
137-422	Acting for Vocalists 4*	2
137-315	Dance and Choreography 1	2
137-316	Dance and Choreography 2*	2
137-317	Dance and Choreography 3*	2
137-318	Dance and Choreography 4*	2
137-321	Intermediate Improvisation 3	2
137-421	Intermediate Improvisation 4	2
137-313	Repertoire Development 3	2
137-413	Repertoire Development 4	2
137-332	Solo Performance 3	4
137-432	Solo Performance 4	4
137-114	Vocal Minor 1	2
137-214	Vocal Minor 2	2

Performance Courses, Level 3		Credits
137-522	Acting for Vocalists 5*	2
137-622	Acting for Vocalists 6*	2
137-516	Dance and Choreography 5*	2
137-616	Dance and Choreography 6*	2
137-521	Advanced Improvisation 5	2
137-621	Advanced Improvisation 6	2
137-513	Repertoire Development 5	2
137-613	Repertoire Development 6	2
137-512	Solo Performance 5	4
137-612	Solo Performance 6	4
	Major Instrument Perf. 5	8
	Major Instrument Perf. 6	8

***Required for Vocalists.**

General Courses, Level 2		Credits
137-307	Functional Keyboard 3	2
137-407	Functional Keyboard 4	2
137-115	Percussion Minor 1	2
137-225	Percussion Minor 2	2
137-001	Recording & Sound Reinforcement 1	2
137-002	Recording for the Performer	2
137-119	Survey of Film Music	2
137-120	Survey of Broadway Musicals	2
137-116	Woodwind Minor (Music Elective)	2
137-216	Woodwind Minor 2	2

General Courses, Level 3		Credits
137-117	Careers and Finances 1	2
137-507	Functional Keyboard 5	2
137-607	Functional Keyboard 6	2
137-110	Sound and Synthesis 1	2
137-210	Synthesis 2	2
137-111	The Music of Duke Ellington	2
137-112	The Private Music Teacher	2

Each student must achieve a minimum of 24 credits in Level 3 courses, in order to graduate.

Major Instrument Performance 5:		Credits
137-580	Major Instrument Performance - Bass	4
137-581	Major Instrument Performance - French Horn	4
137-582	Major Instrument Performance - Guitar	4
137-583	Major Instrument Performance - Keyboard 6	4
137-584	Major Instrument Performance - Percussion 5	8
137-585	Major Instrument -Trombone	4
137-586	Major Instrument - Trumpet	4
137-587	Tuba	4
137-588	Major Instrument - Vocal	4

Music Program (cont'd.)

137-589	Major Instrument - Woodwind Performance 5	8

Major Instrument Performance 6:		Credits
137-680	Major Instrument - Bass	4
137-681	Major Instrument - French Horn	4
137-682	Major Instrument - Guitar	4
137-683	Major Instrument Performance - Keyboard 6	4
137-684	Major Instrument Performance - Percussion 6	8
137-685	Major Instrument - Trombone	4
137-686	Major Instrument - Trumpet	4
137-687	Major Instrument - Tuba	4
137-688	Major Instrument - Vocal	4
137-689	Major Instrument - Woodwind Performance 6	8

Addenda to the Curriculum: 1. Major Instrument subjects 1 through 6 may be a combination of private lessons and master classes, as determined by the Faculty to best serve the individual needs of the students. 2. Any student who fails a required subject must repeat that subject at the earliest offering of same. The taking of said subject will take priority on the student's timetable over any other subject. Students who are seriously in default of credits through failure may be barred from the ensembles program and major instrument subjects until such deficiencies are corrected. 3. Vocal Majors are required to take the following courses: Dance and Choreography 301, 311, 401, 411, 501, 601 Acting for Vocalists 3, 4, 5, 6

Nature Interpreters

North Campus

Post-Diploma Program

3 semesters beginning September

In this program you will learn the techniques and skills needed to provide interpretive programs with variety and expertise. Major emphasis is placed on communicating effectively with the public by understanding and anticipating the needs of a variety of groups.

During the first semester a solid foundation of interpretive skills will be laid to assist the students in the work placement. The planning of programs, displays, posters and pamphlets will lead students through actual examples from beginning to end, with a chance to apply this in the second and third semesters. Further emphasis is placed on knowing available resources. Many interpretive or natural resource centres will be visited, and available resource literature and courses will be reviewed.

If you are considering this program, you should have a strong background in natural science and an understanding for the role a nature interpreter plays. Also valuable is an understanding for the jobs available and a keen desire to strive professionally for a position in a competitive field.

Admission Requirements

- Ontario secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- senior biology, general level plus several years involvement in nature studies activities

  OR
- a graduate of a complementary college program (Recreation Leadership, Horticulture, Fish and Wildlife Management)

  OR
- mature student status with several years experience in resource management and nature studies

Curriculum

Semester 1 (24 hours/week)		Credits
941-102	Communications 1 *Pre-Req:* 941-205 Introductory Communications	4
151-101	Life Span Development	3
151-102	Interpretive Techniques	3
151-103	Interpretive Planning	4
151-104	Nature Interpretation Resources 1	4
151-105	Canadian Education in the Out-of-Doors	3
759-103	First Aid & Accident Prevention	1

Semester 2 (23 hours/week)		Credits
151-304	Nature Interpretation Resources 2 *Pre-Req:* 151-104 Nature Interpretation Resources 1	4
151-303	Applied Interpretation *Pre-Req:* 151-103 Interpretive Planning	4
151-302	Field Studies	4
151-301	Field Placement	3
151-306	Management	3
151-305	Audio Visual Media Applications	3
	Communications 2	4

Job Opportunities

Possible areas for employment include conservation authorities, school board outdoor education centres, provincial parks, arboreta, etc.

Additional Costs

Textbooks and other supplies will cost approximately $225. Field trips will incur additional expenses (approx. $300.00) and relocation expenses may be involved in the third semester.

For more information contact Carol Ray at 675-3111 ext. 4663.

Field Placement

A four-month field placement takes place during May to August. Students are expected to find an experience-related summer job. A resource of agencies for placement is available for those students experiencing difficulty. However, a paying position may be compromised.

Nature Interpreters Program (cont'd.)

Semester 3	Credits
151-201 Field Placement *Pre-Req:* Successful completion of semesters 1 and 2	6

Package Design

North Campus

Six semesters beginning September

One of the most common items to be found in a consumer society is the package. Humber's unique Package Design Program is dedicated to the training of young men and women in the design, manufacturing and marketing of packaging in its many forms.

You will be (involved in graphic design, three-dimensional design, the relationship of design objectives to technological and marketing requirements, materials and their limitations, and the economics of the packaging industry. The program emphasizes the psychology of colour and design, product protection, government regulations affecting the package, printing and reproduction processes, and the impact of consumerism on the design process. During the fifth semester, students are given the opportunity to specialize. In the sixth semester students are placed in cooperative work situations in design studios, packaging plants, packaging printers, research facilities (involved with package design), and packaging sales.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- attendance at a counselling interview with
- presentation of a portfolio indicating:
  1. an ability to draw
  2. a sense of design
  3. good craftsmanship

  The portfolio should include 10-12 finished original pieces (craft or design) and sketch books

Job Opportunities

Package designers find positions in design studios and in various industrial areas. You could specialize in structural design for corrugated and paper board plants or you could work for design studios in packaging design. You could produce camera-ready artwork for printing houses or photo engravers. Some graduates have gone into sales, research or marketing for large packaging houses. A more recent area is the computer graphic design which will expand in the coming years.

Expected Workload

You can expect to work hard and long hours to attain the level of quality required in the industry.

Additional Costs

You can plan to spend from $300-$400 per semester for art supplies and equipment.

Curriculum

Semester 1 (24 hours/week)	Credits
471-101 Packaging Graphics 1 *Pre-Req:* Full-time students will attend a total program interview	3
472-102 Packaging Design 1	3
471-105 Packaging Typography 1	3
471-130 Marketing Design Objective 1	2
471-131 Packaging Technology 1	3
476-106 Packaging Studio Methods 1	3
471-108 History of Packaging 1	3
476-107 Packaging Drawing 1	3
941-115 Communications 1	4

Semester 2 (26 hours/week)	Credits
471-201 Packaging Graphics 2 *Pre-Req:* 471-102 Packaging Design 1, 471-101 Packaging Graphics 1	3
471-205 Packaging Typography 2 *Pre-Req:* Packaging Typography 1	3
471-231 Packaging Technology 2 *Pre-Req:* 471-131 Packaging Technology 1	2
471-206 Packaging Studio Methods 2 *Pre-Req:* 471-205 Packaging Typography 2	3
471-232 Packaging Research 2 *Pre-Req:* Packaging Research 1	2
471-207 Technical Illustration 1	3
471-112 Perceptions and Colour	3
941-116 Communications 2	4
General Studies	3

Semester 3 (25 hours/week)	Credits
471-301 Packaging Research 3 *Pre-Req:* 471-232 Packaging Research 2	1
471-302 Materials and Testing 1 *Pre-Req:* 471-201 Packaging Graphics 2, 471-231 Packaging Technology 2	2
471-303 3-Dimensional Design 1 *Pre-Req:* 471-206 Packaging Studio Methods 2	8
471-304 Printing Processes 1 *Pre-Req:* 471-206 Packaging Studio Methods 2	3
471-305 Packaging Machinery 1 *Pre-Req:* Packaging Research	2
471-306 Government Regulations 1 *Pre-Req:* 471-232 Packaging Research 2, 471-201 Packaging Graphics 2, 471-206 Packaging Studio Methods 2	3
471-230 Marketing Design Objectives 2 *Pre-Req:* 471-130 Marketing Design Objective 1	3
General Studies	3

Semester 4 (24 hours/week)	Credits
471-401 Packaging Research 4 *Pre-Req:* 471-301 Packaging Research 3	1

Package Design (cont'd.)

471-402 Materials & Testing 2 *Pre-Req:* 471-302 Materials and Testing 1	3
471-403 3-Dimensional Design 2 *Pre-Req:* 471-303 3-Dimensional Design 1	7
471-404 Printing Processes 2 *Pre-Req:* 471-304 Printing Processes 1	2
471-405 Packaging Machinery 2 *Pre-Req:* 471-305 Packaging Machinery 1	2
471-406 Resource Management	3
471-137 Public Relations	2
471-407 Intro. to Computer Graphics	2
General Studies	3

Semester 5 (24 hours/week)	**Credits**
471-501 Packaging Research 5 *Pre-Req:* 471-401 Packaging Research 4	2
471-533 Packaging For The Future *Pre-Req:* 471-303 3-Dimensional Design 1	3
471-507 Computer Graphics 2	2
General Studies	3
One of the following options:	
471-502 Graphic Design Option	14
OR	
471-503 Package Design Option *Pre-Req:* 471-403 3-Dimensional Design 2	14
471-505 Intro. to Computer Design	2

Semester 6 (20 hours/week)	**Credits**
471-602 Co-Operative (Fieldwork) *Pre-Req:* Completion of Semesters 1-5	14
471-601 Packaging Research 6 *Pre-Req:* 471-501 Packaging Research 5	6

Public Relations

North Campus

Diploma program

Six semesters beginning September

A one-year Certificate Program is also offered*

Today's society demands accountability and responsible behaviour from both the public and private groups. Obtaining goodwill through responsible action and ensuring the timely and accurate dissemination of information about an organization's operation is the core of modern public relations. Humber's program will prepare you for the demanding job of a professional public relations practitioner. In addition to the theory underlying modern Public Relations practices, you will use the various tools available to the PR practitioner from publicity to advertising, research to marketing, audio-visual presentations to film and TV. You will learn through practice and start writing your first stories and presentations on your VDT from the first day.

In your sixth semester you will continue your education for four months in a public relations environment off campus. Your future employer will be looking for these qualities: ability to write clearly and concisely with meticulously correct usage, painstaking attention to detail, enthusiasm, perseverance, organizational skills and the ability to understand other people's points of view.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- attendance at an interview/counselling session
- an essay - 150 words
- completion of an editing assessment

Job Opportunities

Graduates from the Public Relations Program have a wide variety of employment areas to chose from: corporate PR, special events, promotional work, publicity, fund raising, union PR, education PR, government, and PR associated with sales and marketing, with personnel, and with product promotion. Generally speaking job opportunities are good.

Curriculum

Semester 1 (22 hours/week)	**Credits**
476-110 PR Writing 1 and PR Lab 1	4
476-102 Effective Speech 1	2
476-101 Introduction to PR & Case Studies	4
476-103 Photography and AV for P.R. Practitioners	2
Economics for PR	3
Communications 1	4
General Studies	3

Semester 2 (21 hours/week)	**Credits**
476-210 PR Writing and PR Lab 2 *Pre-Req:* 476-110 PR Writing 1 and PR Lab 1	4
476-202 Effective Speech 2 *Pre-Req:* 476-102 Effective Speech 1	2
476-131 Introduction to Radio	2
Communications 2	4
Political Science 1	3
General Studies Electives (2)	6

Semester 3 (20 hours/week)	**Credits**
476-310 PR Writing 3 and PR Lab 3 *Pre-Req:* 476-210 PR Writing and PR Lab 2	4
476-104 Layout & Production for Print 1	3
476-105 Intro. to Advertising	2
476-137 Practical PR 1	2

Public Relations (cont'd.)

476-133	Elements of FILM/TV	2
476-411	Element of Fundraising *Pre-Req:* 476-103 Photography and AV for P.R. Practitioners	2
	General Studies	3

Semester 4 (23 hours/week)		Credits
476-400	PR Writing 4 *Pre-Req:* 476-310 PR Writing 3 and PR Lab 3	4
476-412	PR Lab 4	4
476-204	Layout & Production for Print 2 *Pre-Req:* 476-104 Layout & Production for Print 1	3
476-413	Seminar 1	2
476-203	Case Studies 2 *Pre-Req:* 476-101 Introduction to PR & Case Studies	2
476-206	Advertising Writing for PR *Pre-Req:* 476-105 Intro. to Advertising	2
	Business Procedures & Marketing for P.R.	4
476-139	P.R. Research	2

Semester 5 (22 hours/week)		Credits
476-501	PR Writing 5 *Pre-Req:* 476-400 PR Writing 4	2
476-513	PR Lab 5 *Pre-Req:* 476-412 PR Lab 4	8
476-514	Seminar 2	2
476-511	Practical PR 2 *Pre-Req:* 476-137 Practical PR 1	2
476-140	Persuasion & Promotion	2
476-515	Computers for PR	4
476-304	Layout & Production for Print 3 *Pre-Req:* 476-204 Layout & Production for Print 2	2
	P.R. in the Workplace	2

Semester 6 (4 hours classroom time/month)		Credits
476-112	Field Work *Pre-Req:* Passing grade in all course subjects	24

Public Relations Certificate

One-Year Program

A one-year Public Relations Certificate program is offered for mature students. The program begins in September. After completing 2 semesters of classroom work students experience a valuable internship in the industry. This takes place in May-June period. More information may be obtained by calling Bette Stanley, Coordinator of Humber's Public Relations Program at 675-3111 extension 4507.

Admission Requirements

- College Diploma, University Degree and/or background in the industry
- attendance at an interview. Interviewers will be looking for excellence in writing, self-discipline and understanding of other people
- an essay - 150 words
- completion of an editing assessment

Curriculum

Semester 1 (23 hours/week)		Credits
456-100	Persuasion & Promotion	2
456-101	A.V. Tech. 2	2
456-102	Intro. to Advertizing	2
456-103	Effective Speech	2
456-104	Elements of Film/TV	2
456-105	Intro. to PR & Case Studies	4
456-106	Layout Prod. for Print 1	3
456-109	Practical P.R. 1	2
456-108	P.R. Writing & Lab 1	4

Semester 2 (23 hours/week)		Credits
456-200	P.R. Research	2
456-201	Computers & Hi Tech.	2
456-202	Intro. to Radio	2
456-203	Seminar	2
456-204	Fund Raising	2
456-205	Case Studies	2
456-206	Layout Production for Print 2	3
456-207	Practical P.R.	2
456-208	P.R. Writing & Lab 2	4
456-209	Advertising Writing	2

Semester 3 (May-June)		Credits
456-300	Field Work	13

Radio Broadcasting

North Campus

Six semesters beginning September

A one-year Certificate Program is also offered

Radio broadcasting is a competitive industry with a demand for highly qualified professionals in all of its segments. Humber's Radio Broadcasting Program continues to lead the field in radio education. It is designed to develop the 'total broadcaster'. Students are taught every aspect of the profession: writing, announcing, production, management, sales, programming, technical work, music direction, promotion, market research, interviewing techniques, news and sports writing. Because program personnel maintain contact with the public and private sectors of the industry, course content is relevant and reflects current needs. 'Hands-on' training is provided through the closed-circuit radio stations operated by the program. Students in third year are all given opportunities to train at radio stations in the Metro Toronto area and throughout the province.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- attendance at an interview/-counselling session
- questionnaire
- a 250 word essay
- preparation of two 30 second commercial messages to be read onto a tape

Job Opportunities

Graduates have found work all over Canada and many of our broadcasters have become household names in the communities they serve.

Curriculum

Semester 1 (22 hours/week)	Credits
477-101 Intro. to Radio	2
477-131 Operating and Engineering 1	2
477-138 Radio Lab 1	2
922-107 Political Science for Radio Broadcasting	3
934-113 Human Relations	3
Communications 1	4
General Studies (2)	6

Semester 2 (22 hours/week)	Credits
477-110 Writing for Radio 1	2
477-102 Announcing Techniques 1	2
477-231 Operating and Engineering 2 *Pre-Req:* 477-131 Operating and Engineering 1	2
477-238 Radio Lab 2 *Pre-Req:* Radio Lab 1	2
Communications 2	4
477-220 Broadcast News 1	2
General Studies	6
On Air Techniques	2

Semester 3 (20 hours/week)	Credits
477-135 Retail Radio Sales	2
477-200 Writing for Radio 2 *Pre-Req:* 477-110 Writing for Radio 1	4
477-310 Announcing Techniques 2	4
477-306 Radio Production 1	2
911-043 Linguistics 1	3
477-320 Broadcast News 2 *Pre-Req:* 477-220 Broadcast News 1	2
On Air Techniques	3

Semester 4 (22 hours/week)	Credits
477-300 Writing For Radio 3 *Pre-Req:* 477-200 Writing for Radio 2	4
477-401 Broadcast Research & Marketing 1 *Pre-Req:* Broadcast Research, Marketing and National Sales 2	4
477-403 Announcing Techniques 3 *Pre-Req:* 477-310 Announcing Techniques 2	2
477-406 Radio Production 2	2
911-046 Linguistics 2	3
477-420 Broadcast News 3 *Pre-Req:* 477-320 Broadcast News 2	2
477-404 National Radio Sales 1	2
On Air Techniques	3

Semester 5 (20 hours/week)	Credits
477-107 Radio Seminar	2
477-502 Radio Lab 3 *Pre-Req:* 477-238 Radio Lab 2	4
477-400 Writing for Radio 4 *Pre-Req:* Writing for Radio 3	4
477-503 Announcing Techniques 4	2
477-504 Broadcast Research & Marketing and National Radio Sales 2 *Pre-Req:* Broadcast Research & Marketing 1 and National Radio Sales 1	2
477-305 Radio Drama 1	2
On Air Techniques	4

Semester 6 (37 hours/week)	Credits
477-600 Internship *Pre-Req:* The successful completion of every course in all previous semesters of the Radio Broadcasting Program.	35

Radio Broadcasting Certificate

One-year Program

A one-year Radio Broadcasting Certificate Program is offered for mature students. More information may be obtained by calling Stan Larke, coordinator of the Radio Broadcasting Program at 675-3111, ext. 4426.

Admission Requirements

- a University Degree, a Diploma from a Community College or related experience in the radio broadcasting industry
- attendance at a short interview is required to assess voice and reading skills. This is sometimes completed by telephone

Curriculum

Semester 1 (22 hours/week)		Credits
455-100	Op. & Eng. 1	2
455-101	Radio Prod. 1	2
455-102	Ann. Tech. 1	4
455-103	Writing for Radio 1	4
455-104	Broadcast News 1	2
455-105	Broadcast Research & Marketing 1	4
455-106	Intro. to Radio	2
455-107	Radio Lab 1	2

Semester 2 (24 hours/week)		Credits
455-200	Op. & Eng. 2	2
455-201	Radio Prod. Lab	6
455-302	Ann. Tech. 3	4
455-303	Writ. for Radio 3	4
455-304	Broadcast News 3	2
455-205	Broad. Research & Marketing Nat. Sales 2	2
455-206	Retail Radio Sales	2
455-207	Radio Seminar	2

Rehabilitation Worker

Lakeshore Campus

Four semesters beginning September, or January

Available on a part-time basis as well.

The field of rehabilitation needs frontline personnel to assist special needs adults improve their physical, mental, social and vocational condition. This program has been developed in cooperation with professional rehabilitation personnel who work in agencies and associations of the public and private sectors. The program structure supports the integration of special needs persons into work opportunities suited to their goals, functional level and labour-market conditions. Persons who are interested in providing residential program services for special needs persons will also find this program rewarding.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- grade 12 English, general level
- the ability to work with people with special needs must be shown through an employment or volunteer work history
- senior biology at the general level is recommended
- letters of reference from rehabilitation professionals or past employers are desirable
- attendance at an orientation session
- willingness to complete a health screening review prior to assignment to field

Job Opportunities

Graduates work in the vocational rehabilitation or employment services systems, in residential program services, in special needs education and in the insurance industry. We try to match your field placement to your entry-level employment goal. In many cases, graduates have been hired where they did their field work.

In a career path study made in 1983, two paths emerged among graduates who remained in the rehabilitation field. Some graduates attended university either full-time or part-time to upgrade skills. These graduates then entered clinical and administrative positions in municipal and provincial government and private agencies. Other graduates obtained work rapidly and progressed through the ranks to positions as supervisors or coordinators of programs for residential or vocational services.

Additional Costs

Text costs are approximately $250 per semester. Supplies cost approximately $75. Transportation costs may vary with field placements. Students will need clothing which is appropriate to field placement sites and to campus activities. Special trips or projects occur during the year which provide valuable learning experiences. Costs for the special activities vary but we estimate $150 will meet these needs.

Field Placement

Various agencies throughout Metro Toronto, Halton and Peel provide learning opportunities for program students.

Curriculum

Semester 1 (25 hours/week)		Credits
117-110	Lifespan Development	3
117-111	Psychology 1: Understanding Human Behaviour	3
117-112	Urban Sociology-City Issues	3
117-108	Introductory Methods (R.W.)	3
117-113	Interpersonal Skills	3
117-109	Human Services Seminar	3
	English Communications	4
	General Studies	3

Semester 2 (27 hours/week)		Credits
759-109	Accommodation for Physical Disability	2
117-208	Programming (R.W.)	4
117-209	Basic Living Skills 1 (R.W.)	2
739-113	Structure & Function (R.W.)	4
117-211	Field Practicum 1	7
	General Elective	3
	English Communications	4

Semester 3 (27 hours/week)		Credits
117-302	Assessment and Evaluation	6
117-305	Field Work 3 (R.W.) *Pre-Req:* 941-102 Communications 1	11
117-310	Placement Services	3
117-309	Application of Rehabilitation Process	4
117-304	Ergonomics 1	3

Semester 4 (27 hours/week)		Credits
117-406	Medication: Use and Abuse	3
117-404	Administrative Management	3
117-408	Field Work 4 (R.W.) *Pre-Req:* 117-305 Field Work 3 (R.W.)	14
117-405	Field Practicum 2 *Pre-Req:* Field Practicum 1	6

English literacy is a critical worker function in Rehabilitation Work. To achieve strong written communication skills, this program encourages students to learn and to refine writing skills. The Advisory Committee and Field Work Supervisors have agreed that students must complete English Communications 1 before they begin field work.

Retail Floriculture (Flower Shop Operations and Management)

North Campus

Four semesters starting September

In the Retail Floriculture Program you will study the practice of floral arrangement, including design, storage methods, special arrangement techniques, construction of a wide range of floral products, preparation and colour coordination. You will learn the difference between traditional and contemporary arrangements, identify house plants and know the appropriate care for each one. Greenhouse and container-grown crop production, propagation of horticultural crops, greenhouse soil mixtures and soil amendments are also discussed.

In addition to this laboratory experience, you will spend time in the College's flower shop as well as in retail florist shops. These field experiences will help you apply your theory in accounting, cost control, retailing techniques, personnel and public relations, advertising, salesmanship and business management.

The range of topics studied will prepare you for responsible and challenging positions in the floral industry after a few years of experience.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- attendance at an orientation session

Interests and Skills

- some design and artistic ability
- an interest in plants
- a willingness to meet and talk with customers in a retail sales setting

Job Opportunities

As a graduate you will find openings in floral design, display merchandising sales and operation of florist shops or floral department stores. With industry experience you will be able to progress into management and ownership opportunities.

Additional Costs

In this program the major textbooks are purchased in the beginning and used during the whole program. You should spend approximately $300 for the two years.

Curriculum

Semester 1 (27 hours/week)		Credits
153-115	Floral Design Lab 1	6
153-111	Applied Botany & Plant Identification	3
153-109	Principles of Floral Design 1	2
153-110	Introduction to Florist Industry	2
153-116	Flower Shop Operations 1	3
243-105	Retail Math	4
941-102	Communications 1 *Pre-Req:* 941-205 Introductory Communications	4
	General Studies	3

Retail Floriculture (Flower Shop Operations and Management) (cont'd.)

Semester 2 (26 hours/week)	Credits
153-104 Floral Design Lab 2	8
153-201 Plant Identification 2	2
153-204 Principles of Floral Design 2	2
243-201 Receiving & Inventory Proc.	4
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4
153-216 Flower Shop Operations 2	3
General Studies	3

Semester 3 (21 hours/week)	Credits
153-301 Floral Design Lab 3 *Pre-Req:* 153-104 Floral Design Lab 2	8
153-306 Greenhouse Floriculture 1	3
153-316 Flower Shop Operations 3 *Pre-Req:* 153-216 Flower Shop Operations 2	3
243-312 Retail Advertising and Promotion	4
General Studies	3

Semester 4 (23 hours/week)	Credits
153-407 Floral Design Lab 4 *Pre-Req:* 153-301 Floral Design Lab 3	6
153-406 Greenhouse Floriculture 2 *Pre-Req:* 153-306 Greenhouse Floriculture 1	3
243-104 Sales and Selling Skills	4
General Studies	3
153-416 Flower Shop Operations 4 *Pre-Req:* 153-316 Flower Shop Operations 3	3
153-303 Flower Shop Management	4

Social Service Worker*

Lakeshore Campus

Four semesters beginning September

(also available on a part-time basis/day time only)

***Also see Community Worker Program. With these programs it is possible to attend college for three years to receive two diplomas: one in Community Work and one in Social Service Work. General**

The program prepares you to assist individuals who are experiencing social problems because their basic needs have not been adequately satisfied. You learn about human behaviour and development and how circumstances can alter or stop satisfactory growth. You will acquire helping skills to help individuals obtain the resources they need or enable them to improve their coping and problem-solving abilities. Remedies may include financial aid, counselling and teaching life skills. Field work in a social service organization two days a week (semester two, three, four) provide an opportunity to practice skills and methods of helping through case management, group work or community outreach. Students may be involved in work with children or senior citizens, with the physically ill or disabled, with situations of financial need, emotional or mental health problems, or in the field of correctional services.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- a minimum of 50 hours of documented volunteer experience in a recognized human service and a letter of reference from someone within the profession
- a second letter of reference from a person of your choice
- attendance at an orientation session
- medical certificate of health

Interests and Skills

- capacity to develop self-awareness, maturity
- tolerance of individual and group differences
- strength under stress and ability to meet deadlines
- good communication skills, both written and oral

Job Opportunities

Graduates have found jobs in provincial and municipal social services, correctional services, community work, services to the aged, mental health programs and residential settings.

Additional Costs

Students should budget $200.00 per semester for supplies and are responsible for transportation costs to their field placement (in Metro Toronto).

Curriculum

Semester 1 (24 hours/week)	Credits
123-117 Social Psychology	3
123-118 Urban Sociology	3
123-119 Human Growth and Development	3
123-120 Orientation to Human Services	3
123-121 Information and Referral Skills	3
123-122 Interpersonal Skills	3
123-123 Field Practice Orientation	2
Communications 1	4

Semester 2 (27 hours/week)	Credits
122-208 Field Practice 1 *Pre-Req:* 941-105 Language Skills	7
122-209 Contemporary Family	3
122-211 Integrative Seminar	1
123-224 Group Work Skills *Pre-Req:* 123-122 Interpersonal Skills	3
123-225 Political Process	3
123-226 Interviewing & Counselling Skills 1 *Pre-Req:* 123-121 Information and Referral Skills	3

Social Service Worker* (cont'd.)

	Communications 2	4
	General Elective	3

Semester 3 (23 hours/week)		Credits
122-315	Field Practice 2 *Pre-Req:* 941-115 Communications 1	7
122-316	Interviewing & Counselling 2 *Pre-Req:* 123-226 Interviewing & Counselling Skills 1	3
122-317	Integrative Seminar	1
123-325	Agency Administration & Fundraising	3
123-431	Current Issues in Human Services	3
123-327	Special Needs Populations	3
	General Elective	3

Semester 4 (24 hours/week)		Credits
122-404	Field Practice 3	7
122-405	Case Management and Advocacy	3
122-406	Group Home Management	3
122-407	Integrative Seminar	1
123-429	Legislation in Human Services	3
123-430	Volunteer Management	3
123-326	Cross Cultural Skills	3
123-432	Job Search Skills	1

After semester 4 you may choose to go on for two more semesters and achieve a second diploma in Community Work providing you meet 3rd year requirements.

Theatre

North Campus

Six semesters for the Performance option and the Technical option

Humber's Theatre Program offers two distinct options--one toward acting (Performance) and the other toward production (Technical).

Performance Option

The curriculum for Performance students includes: Acting Techniques, Movement, Voice, Text Analysis, Audition Techniques, Singing, Dance, Improvisation and Drama Studies. Students learn by doing, through class productions and Mainstage Productions with performances on and off campus.

Additional performance and production opportunities are provided in association with the Film and Television and the Radio Broadcasting programs.

Theatre Technology Option

This option entails working in such areas as stage management, carpentry, drafting, lighting, properties, costume and sound. Much of the student's time is also spent in apprenticeship as part of the Department's mainstage and workshop productions and with Toronto's foremost professional theatres.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- attendance at an interview/academic counselling session
- each candidate must prepare a piece and audition before a group of faculty members (Performance option only)

Interests and Skills

- self-discipline, concentration and maturity
- ability to work as part of a team

Job Opportunities

Graduation is an important step toward success in professional theatre. In recent years, all graduates of Theatre Humber have found employment as performers, production assistants and stage managers, frequently on a part-time or freelance basis.

Our faculty, all working professionals, provide an invaluable link between Theatre Humber and the profession.

Expected Workload

Both options are demanding on time and energy and require a firm commitment to a work pattern similar to that found in professional theatre. Much of the course work extends far beyond the normal classroom timetable.

Curriculum

Performance Option

Semester 1 (29 hours/week)		Credits
481-105	Production Practices 1	2
481-107	Movement 1	3
481-108	Voice 1	3
481-117	Singing 1	2
481-126	Scene Study 1	5
481-127	Theatre History 1	2
481-502	Dance 1	2
	Communications 1	4
481-120	Improvisation 1	2
	General Studies	3

Semester 2 (29 hours/week)		Credits
481-207	Movement 2 *Pre-Req:* 481-107 Movement 1	3
481-208	Voice 2 *Pre-Req:* 481-108 Voice 1	3
481-217	Singing 2 *Pre-Req:* 481-117 Singing 1	2
481-228	Scene Study 2 *Pre-Req:* 481-126 Scene Study 1	5
481-229	Improvisation 2 *Pre-Req:* 481-120 Improvisation 1	2
481-232	Production Practices 2 *Pre-Req:* 481-105 Production Practices 1	2

Theatre (cont'd.)

481-235 Dance 2 *Pre-Req:* 481-502 Dance 1	2
Communications 2	4
481-227 Theatre History 2 *Pre-Req:* 481-127 Theatre History 1	2
General Studies	3

Semester 3 (29 hours/week)	Credits
481-308 Voice 3 *Pre-Req:* 481-108 Voice 1	3
481-309 Directing 1	2
481-318 TV Performance 1	4
481-326 Movement 3 *Pre-Req:* 481-207 Movement 2	4
481-327 Scene Study 3 *Pre-Req:* 481-228 Scene Study 2	6
481-328 Improvisation & Test Analysis 1	3
481-329 Singing 3 *Pre-Req:* 481-217 Singing 2	2
481-330 Fencing & Stage Combat	2
General Studies	3

Semester 4 (30 hours/week)	Credits
481-408 Voice 4 *Pre-Req:* 481-308 Voice 3	3
481-409 Directing 2 *Pre-Req:* 481-309 Directing 1	2
481-418 TV Performance 2 *Pre-Req:* 481-318 TV Performance 1	4
481-426 Movement 4 *Pre-Req:* 481-326 Movement 3	4
481-428 Scene Study 4 *Pre-Req:* 481-327 Scene Study 3	8
481-429 Improvisation & Text Analysis 2 *Pre-Req:* 481-328 Improvisation & Test Analysis 1	3
481-430 Mime	3
General Studies	3

Semester 5 (18 hours/week)	Credits
481-504 Scene Study 5 *Pre-Req:* 481-428 Scene Study 4	5
481-508 Voice 5 *Pre-Req:* 481-408 Voice 4	3
481-516 Audition	3
481-518 Movement 5 *Pre-Req:* 481-426 Movement 4	4
481-526 Mime 2 *Pre-Req:* 481-430 Mime	3

Semester 6 (29 hours/week)	Credits
481-606 Production	9

***Only nine of the 29 periods represent formal instruction. Twenty hours are devoted to rehearsal and plays.**

Technical Option

Semester 1 (21 hours/week)	Credits
481-119 Lighting Technology 1	2
481-122 Stage Management 1	3
481-123 Drafting 1	2
481-124 Drawing 1	2
481-125 Theatre History 1	2
Communications 1	4
General Studies	3
481-144 Carpentry 1	3

Semester 2 (25 hours/week)	Credits
481-205 Costume 1	3
481-219 Lighting Technology 2 *Pre-Req:* 481-119 Lighting Technology 1	2
481-222 Stage Management 2 *Pre-Req:* 481-122 Stage Management 1	2
481-223 Drafting 2 *Pre-Req:* 481-123 Drafting 1	2
481-224 Colour Study	2
481-225 Properties 1	3
481-226 Theatre History 2	2
481-249 Carpentry 2 *Pre-Req:* 481-144 Carpentry 1	3
Communications 2	4
General Studies	3

Semester 3 (27 hours/week)	Credits
481-302 Carpentry 3 *Pre-Req:* 481-249 Carpentry 2	3
481-319 Lighting Design 1 *Pre-Req:* 481-119 Lighting Technology 1	3
481-320 Scenic Painting 1 *Pre-Req:* 481-224 Colour Study	3
481-321 Set Design 1	3
481-322 Costume Design 1	3
481-324 Sound 1	3
481-325 Apprenticeship 1	6
General Studies	3

Semester 4 (30 hours/week)	Credits
481-402 Carpentry 4 *Pre-Req:* 481-302 Carpentry 3	3
481-419 Lighting Design 2 *Pre-Req:* 481-319 Lighting Design 1	3

Theatre (cont'd.)

481-420 Scenic Painting 2 *Pre-Req:* 481-320 Scenic Painting 1	3
481-421 Set Design 2 *Pre-Req:* 481-321 Set Design 1	3
481-422 Costume Design 2 *Pre-Req:* 481-322 Costume Design 1	3
481-424 Sound 2 *Pre-Req:* 481-324 Sound 1	3
481-425 Apprenticeship 2 *Pre-Req:* 481-325 Apprenticeship 1	6
General Studies	3
481-405 Properties 2 *Pre-Req:* 481-225 Properties 1	3

Semester 5 (21 hours/week)	**Credits**
481-506 Carpentry 5 *Pre-Req:* 481-402 Carpentry 4	3
481-509 Production Management	3
481-519 Lighting Design 3 *Pre-Req:* 481-419 Lighting Design 2	3
481-521 Set Design 3 *Pre-Req:* 481-421 Set Design 2	3
481-522 Costume Design 3 *Pre-Req:* 481-422 Costume Design 2	3
481-525 Apprenticeship 3 *Pre-Req:* 481-425 Apprenticeship 2	6

Semester 6 (20 hours/week)	**Credits**
481-609 Production Credits	20

Urban Tree Maintenance

North

Four semesters (two years) in duration

This is the first diploma program in Ontario, specifically designed for Tree Workers (Arborists). It originated in response to industry demands for increasing numbers of well-trained, knowledgeable college-level employees.

On completion of the program, you will have a thorough working knowledge of all aspects of Arboriculture (Urban Tree Maintenance).

Particular emphasis will be on:

- an indepth, practical examination of basic related sciences (see curriculum below);
- teaching of the most up-to-date Arboricultural theories and practices;
- safety awareness and preparedness;
- an introduction to the most progressive tools and techniques used in the management of Urban Forests and pest problems;
- advanced Arboricultural skills development through regular field training sessions.

As a compliment to the sciences and field practice, math, English Communications and general studies electives will better prepare the student for success and future personal development.

On completion of Semester 2 (April), students are required to secure Arboriculture related experience, and maintain a daily log book.

On graduation after the third and fourth semester, students will be ready for full-time employment in the Tree Maintenance Industry.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent or mature student status
- attendance at a counselling interview/information session
- business & consumers mathematics is recommended

Job Opportunities

With the training and experience required to earn this diploma, you will be well-prepared for employment with general or specialized Arboricultural employers from municipal, provincial and federal government, to public utility contractors and other private sector employers.

The demand for well-trained reliable Tree Workers, (particularly tree climbers at entry level) is increasing, and prospects for future advancement are exciting. One big advantage of this profession is the diversity of employers and employment responsibilities.

As you get older, or decide you want a change, there are many new opportunities and horizons to explore.

Wages, salaries, and benefits are excellent, and the industry is growing rapidly.

Additional Costs

Students are required to supply their own personal safety apparel; work-rated boots, hard hat, safety glasses, work clothes, hearing protection, climbing belt, rope and pole strap, and a few hand tools. In 1986 this equipment cost approximately $500.00.

Curriculum

Semester 1 (23 hours/week)	**Credits**
164-113 Botony/Plant I.D.	4
164-115 Arboriculture 1/Lab	5
164-117 Soils	2
739-806 C.P.R. (Basic Life Support)	1
759-103 First Aid & Accident Prevention	1
941-115 Communications 1	4
General Studies (2)	6

Semester 2 (30 hours/week)	**Credits**
164-203 Equipment Maintenance and Safe Operation 1	3
164-212 Arboriculture Lab 2	8
164-205 Field Placement	8
164-204 Arboriculture 2	2
164-202 Tree I.D. 2	2
941-116 Communications 2	4
General Studies	3

Urban Tree Maintenance Program (cont'd.)

Semester 3 (29 hours/week)		Credits
164-311	Arboriculture 3	3
164-304	Arboriculture Lab 3	8
164-313	Urban Forestry	3
164-302	Tree Identification 3	2
164-306	Tree Diseases and Control	2
164-305	Field Placement	8
	General Studies	3

Semester 4 (24 hours/week)		Credits
164-411	Arboriculture 4	3
164-412	Arboriculture Lab 4	8
164-402	Tree Identification 4	2
164-403	Construction:Ind. Safety Cert.	2
164-404	Math for Arborists	2
164-405	Computer Applic.-Tree Inventory	3
164-406	Pest Licensing/Entomology	4

Course Descriptions

A/V Techniques 480-136
Students will become proficient in the operation, maintenance and applications of audio-visual production and presentation equipment. Students will also practice A/V techniques and show that they are able to properly assemble, store, handle and, if necessary, repair the equipment they must use.

Accommodation for Physical Disability 759-109
This course will provide the student with an introduction to the characteristics of a variety of physical disabilities. The student will understand the practical implications that these disabilities have on the total well-being and physical potential of the individual.
Co-requisite: 739-101 Structure and Function

Acting for Vocalists 137-322
This course is an exploration of scene improvisation based on the methods of Viola Spolin, Keith Johnstone and others. Students will learn how to create a clear sense of character, relationship, place and situation without benefit of props, costumes or scenery. Also covered will be "playing the moment" with another actor, shorthand methods of characterization, and methods of structuring the improvised scene to create a coherent narrative. The student will learn how to work spontaneously and creatively with another actor, as well as how to draw on, discipline and focus his/her imagination for the theatrical medium.
The format of the class is a series of improvisational games and exercises of gradually increasing difficulty, each of which isolates particular problems of the technique of scene improvisation. By learning to create coherent scenes spontaneously, the student will gain valuable insights into the related fields of acting, writing and directing.

Administrative Management 117-404
This course will highlight management aspects of rehabilitation programming. A wide range of necessary topics will be introduced, with emphasis on grant proposal writing, budgeting and project management, financial planning and recording, and program evaluation procedures.

Advanced Materials Applications 472-551
This course is a study of the latest developments in plastic materials technologies combined with exploratory exercises in new applications for existing materials.

Advertising Writing for PR 476-206
This course will develop the skills introduced in introduction to Advertising through practical copy-writing, rough layouts, scripting, designing direct mail, scheduling, buying and assessing media. Various promotions will be analyzed. A full campaign including research, conception, budgeting, scheduling, copy and layout, use of an Ad Agency and evaluation of campaign will be worked out by the students in detail.

Agency Administration & Fundraising 123-325
To acquire an understanding of the management functions and process of a human service agency. To become aware of the administrative elements of a human service worker's job responsibilities. To develop work load management skills (organizing, priorizing and time management). To acquire simple budgeting and bookkeeping skills. To develop information management skills, record keeping, statistics.

Announcing Techniques 1 477-102
The student will learn the fundamentals of announcing procedures as practiced in Canada, covering the personality program, news and sports announcing and interview shows.

Application of Rehabilitation Process 117-309
The rehabilitation process includes assessment, adjustment and placement. Assessment refers to the determination of the handicapping effects of disability or special needs. Placement refers to the attainment of the goal for the client which is optimally placement into competitive employment. Between the initial determination of the handicap or special needs and the final resolution of the problems or barriers presented by the handicap or special needs, a very broad area of activities describe the adjustment process. This course will focus on those adjustment activities specifically related to the individualized training plans.

Applied Botany 152-133
The course study will be concerned with the basic fundamentals of plants and plant growth. The study of all functioning parts of plants, their reaction to environment and the practical application of cycles and energy flow through ecosystems as they relate to the landscape industry.

Applied Botany & Plant Identification 153-111
This course is a study of commonly sold indoor plants, their structure and their relationships with exterior components affecting their growth. Students will be responsible for the common and botanic names of each plant discussed. (Approximately 90 plants)

Applied Interpretation 151-303
This course is designed to put into action those skills acquired in Interpretive Planning. The students will be responsible for the planning and implementation of public programs.

Applied Methods 1 112-119
This course presents an overview of drug therapy and provides the students with a basis of pharmacology which they can supplement throughout their professional lives.

Applied Methods 2 112-318
This course presents an overview of drug therapy and provides the students with a basis of pharmacology which they can supplement throughout their professional lives.

Applied Plant Pathology 152-519
A general study of plant pathology with an application of this theory to common diseases of woody and herbaceous plants in Ontario. The course will cover disease cycles and the identification of diseases common to Southern Ontario.

Apprenticeship 1 481-325
Practical work experience in a variety of production situations. These activities will take place in professional theatres around the metro Toronto area.

Apprenticeship 2 481-425
Refer to course description of Apprenticeship 1 (481-325).

Apprenticeship 3 481-525
Refer to course description of Apprenticeship 1 (481-325).

Arboriculture Lab 2 164-212
See course description for Arboriculture 1/Lab, course 164-115.

Arboriculture Lab 3 164-304
This practical field training will concentrate on developing proficiency in different types of pruning, familiarization with tree removal techniques, and a general examination of other topics discussed in Arboriculture 3.

Arboriculture Lab 4 164-412
This field training course will give students hands-on experience in cabling and bolting and tree evaluation, while building increased efficiency in previously developed skills on climbing, pruning and tree removal.

Arboriculture 1 152-132
This course covers the study of nursery management including site selection, layout and development. The basics involved in establishing a plant nursery or methods for improving an established nursery will be covered.

Arboriculture 1/Lab 164-115
This Urban Tree course will review the role of trees in an urban environment, modern layout and development of tree nurseries, and evaluate latest techniques in planting, moving and pruning trees. The field practice portion of the course offers students a hands-on look at subjects discussed in class.

Arboriculture 3 152-333
A practical examination of tree maintenance procedures, involving tree pruning, large limb removal, felling, climbing techniques, and safe use of tools and equipment. The second semester is lab oriented towards practical projects including cavity work, bracing, tracing, cabling, tree diagnosis and evaluation.

Arboriculture 3 164-311
This Urban Tree course will examine unique planting sites.

chemical control of plants, diagnosis of plant problems, fertilizing and irrigation techniques, grade change around trees, tree removal techniques, girdling roots and wound tracing.

Arboriculture 4 164-411

This Urban Tree course will include a detailed examination of rigid and flexible bracing, lightning protection, cavity treatment, tree evaluation, specification writing and interpretation, integrated pest management and utility line clearance.

Arranging 3 137-309

This course provides the student with basic skills in arranging and orchestration for small commercial, jazz and rock oriented combos. It covers the principles of 2 & 3 part voicing techniques. Successful completion of theory 2 is a requirement. A continuing study of theory 3 is mandatory for the students taking Arranging 3.

Arranging 4 137-409

This course advances the student's knowledge of small group writing and continues the stylistic development of a variety of contemporary music, eg. commercial, jazz, rock, etc.

Arranging 5 137-509

This course is offered to the student who has completed Arranging 4 and who wishes to study writing for large band.

Arranging 6 137-609

This course is a continuation of Big Band writing. It furthers the student's ability to apply the techniques taught in Arranging 5.

Art History 1 473-108

The course will trace the development of western man as demonstrated in visual forms, and will establish the relationship between permanent forms such as architecture, monumental sculpture, Fresco painting and more portable forms such as furniture, easel painting, textiles and the like. Semester one examines Southern and Western Europe from early civilizations until the renaissance.

Art History 2 473-204

The course will trace the development of western man as demonstrated in visual forms, and will establish the relationship between permanent forms such as architecture, monumental sculpture, Fresco painting andmore portable forms such as furniture, easel painting, textiles and the like. Semester 2 examines Southern and Western Europe from theGothic period to the twentieth century.

Art History 3 473-308

Art History 3 aims to build upon the survey of Art History 1 & 2 so as to develop the student's awareness of our rich cultural heritage. After a brief review of the rise and fall of our stream of civilization, recalling the corresponding forms of architecture and art, we will examine significant aspects of the period since the Renaissance. Thus, for example, we will consider the importance of Palladio and his inspiration, not only in Italy but in the rest of Europe and America up to the present century. Similarly, we will note the ways in which painting and sculpture often reflect contemporary worldviews, highlighting the work and thought of major artists and influences up to the eighteenth century. (Art History 4 similarly covers the period from eighteenth to the twentieth centuries). The corse will be illustrated by slides, movies and handouts.

Art History 4 473-408

Art History 4 continues the process of the previous three semesters, aiming to develop the student's rich cultural heritage. After a brief review of the rise of western civilization to 1800, we will trace the progress of art and architecture from the beginning of the Industrial Revolution, through the nineteenth century to the present day. We will study the relationship of the arts to the stimuli of society, touching upon the work and thought of major artists, architects and influences.

Assessment and Evaluation 117-302

In the past decade, there has been a dramatic increase in the use of standardized assessment and evaluation instruments in rehabilitation settings. These instruments are used to place clients, to guide training programs, to evaluate effectiveness of programs in terms of societal norms and to monitor client progress towards training objectives and to provide uniformity in establishing training goals and methods of reporting. As "organizers of behaviour change", rehabilitation personnel will be required to apply the most appropriate assessment technique for a wide variety of settings, to interpret and to apply the test findings in designing individual programs within a general setting. Therefore, this course will include consideration or principles and purposes of assessment, methodology and specific assessment techniques.

Audio Recording Techniques 1 479-218

This course will provide each student with practical and theoretical knowledge of basic audio recording systems and techniques and how audio is applied in a multi-media production. The student will use portable audio recording equipment as well as operate studio and control room equipment.

The student will apply the knowledge in location, studio and control room projects.

Audition 481-516

Audition will enable students to prepare and present a number of monologues and/or musical pieces which will become portfolio material to be used in professional auditions. The course will stress performance skills as they apply directly to the audition situation.

AV Applied Physics 380-198

Students will review the basic physical theories of light as related to audio-visual equipment, specifically lenses, mirrors and prisms. The course will also deal with sound and sound reproduction theory and applications. Emphasis will be on evaluating the design of audio equipment to provide adequate acoustical levels and correct acoustic dispersion in halls and auditoria.

AV Electronics 1 350-201

This course in electrical theory is designed to provide the student with a basic knowledge of direct current andalternating current circuit action. The use of test and measuring instruments for resistance, voltage and current values is emphasized.

AV Electronics 2 350-202

This course provides the student with a working knowledge of the electronic components used in audio-visual systems. The student will be able to recognize specific design features, to diagnose common component faults and repair them. The student will be expected to make any necessary adjustments and set up preventative maintenance procedures to keep the equipment in good working order.

AV Electronics 3 - Tutorial 479-300

This course offers a thorough investigation of the operation of video systems including television monitors and closed circuit television which leads into diagnosis and adjustments. Television reception is also examined.

AV Mathematics 380-197

This is a refresher course to provide the basic technical mathematics for the AV Applied Physics and AV Electronics courses.

AV Media Applications, Introduction 479-117

Audio Visual students will be instructed in the operation, application and presentation of information on conventional audio visual equipment. Students will be required to produce basic audio visual materials and start to assemble them into a portfolio. At the end of the course students will demonstrate their competency in applying various audio visual production and operation skills by planning, producing, programming and presenting multi-media and multi-image sound slide shows. Equipment, facilities and guidance will be coordinated to help students produce their own personal audio visual portfolios. The photographic and scripting components of this course are coordinated with the other core courses in this semester.

AV Production Workshop, Sponsored Projects 479-317

This course is designed to provide students with additional opportunities to assume responsibility for a total multi-media or audio-visual production. Each student obtains a client-sponsor who will use the student's production as an audio-visual instructional resource or for some promotional presentation.

Students experience the professional responsibilities of working with their chosen client-sponsor as the various production components are developed. As well students and (if necessary) client-sponsors meet with the course instructor to report on the progress of the project and arrange for any production facilities or resources which might be required.

Basic Keyboarding 266-052

The student will receive instruction in basic alpha-numeric keyboarding techniques and the preparation of typewritten communications associated with the specific program of study. Some topics may include microcomputer applications where facilities are available.

Basic Living Skills 1 (R.W.) 117-209

This course is intended to introduce the student to those activities which constitute basic living skills. Reasons are explored to answer the question why special needs groups are considered disadvantaged. Further, concepts of adult learning are presented. Specific problems of life skills content and models are presented. Please see the syllabus which is provided for this course.

Basic Photography 1 473-401

The Basic Photography course is designed to take a student, who has had no previous photographic experience, through the photographic sequence so that at the end of the semester he/she has been taught to make a photographic record of the images around him/her. The student will be familiarized with the theoretical and practical aspects of the camera and the darkroom so that he/she will be able to apply this training in the directio of his/her major program.

Basic TV Production 475-401

Students will be introduced to the basic operating and production techniques for television. Students will learn the multiple camera facility of the basic television studio. At the same time, they will learn to research, develop, crew and direct television productions.

Basic TV Techniques 1 133-302

This course will provide the student with a basic understanding of television techniques including voice training, script memorization, and outline, movement on camera and fashion commentary.

Basic TV Techniques 2 133-402

A basic understanding of television techniques including voice training, script memorization, and outline, movement on camera and fashion commentary.

Behavior Pathology 1 112-114

A study of the causes, manifestation and management of maladaptive behaviour. The psychoses, psychoneuroses, conduct disorders, and behavioural disorders affecting children will be examined. The role of learning in the development and maintenance of abnormal behaviour is emphasized throughout as is the interaction of biological, psychological and sociocultural factors in shaping behaviour.

Behaviour Pathology 2 112-218

A continuation of course 112-114.

Behavioural Foundations 1 113-113

This course is an introduction to the major areas of psychology. Topics covered will includephysiological psychology, learning, intelligence, motivation, personality, adjustment, psychotherapy, abnormal psychology, sexual behaviour and social psychology.

Behavioural Foundations 2 113-208

A continuation of Behavioural Foundations 1.

Botony/Plant I.D. 164-113

This Urban Tree course will examine basic plant anatomy and physiology related to tree maintenance practices, and the identification of landscape plants using the universally recognized binomial system of nomenclature.

Broadcast Internship 475-511

Students are required to intern at a radio or T.V. station. Arrangements for the internship program will be worked out by the coordinator in consultation with the students.

Broadcast Internship 2 475-611

Students are required to intern at a radio or T.V. station. Arrangements for the internship program will be worked out by the instructor in consultation with the students.

Broadcast News 1 477-220

This course will introduce the student to the basics of broadcast journalism as practised and required by radio stations in Canada. We will examine different journalism styles and will concentrate on developing the skills needed to gather, write and present the news. Classes will consist of lectures and workshop portions during which assignments will be completed by a regular deadline.

Broadcast News 2 477-320

This course continues the development of skills introduced in Radio News 1. Students concentrate on the learning techniques that are required for radio news writing and reporting.

Broadcast News 3 477-420

This course offers the 4th semester student some time each week to concentrate on fine tuning skills in the areas of Radio News and Sports. While some have selected radio journalism as a career goal, others have not, but it is a fact that in order to become a well rounded radio person, the ability to function in a variety of areas is essential.

Broadcast Research & Marketing and National Radio Sales 2 477-504

The course will contain the basic ingredients needed to plan both retail and national media campaigns for radio, television, print and multi-media.

Broadcast Research & Marketing 1 477-401

This course will concentrate on acquainting the student with broadcast research terms and their use in radio. There will also be emphasis on how broadcast research determines marketing by radio from retail and national agencies, as well as the preparation of marketing plans.

Canadian Education In the Out-of-Doors 151-105

This course is designed to familiarize students with education in the out-of-doors as it exists in Canada. The students will be exposed to the conversationist ethic and to a variety of possible applications. An overview of existing agencies teaching in the out-of-doors will be covered, and the student should gain insight into how they compliment or work against each other.

Carpentry 1 481-144

Introduction to tools and equipment relevant to stagecraft. Basic scenery construction.

Carpentry 2 481-249

A continuation of Carpentry 1, which will complete the students knowledge of materials, techniques, and concepts used in two-dimensional scenery and staging.

Carpentry 3 481-302

Refer to course description of Carpentry 2 (481-249).

Carpentry 4 481-402

A continuation of Carpentry 3 with emphasis on finish work, complex shapes, and advanced shifting techniques.

Carpentry 5 481-506

An introduction to three-dimensional scenery, advanced construction techniques, and basic methods of shifting scenery.

Case Management and Advocacy 122-405

This course will teach the student the role and function of case management. The student will learn appropriate advocacy skills.

Case Studies 475-601

The student is required to undertake a substantial research project and prepare a report on a Canadian newspaper, magazine, radio station, or television station. Although the report will focus on the editorial department of the organization under study, the report must encompass all major departments. Each study is to be a showcase of the student's research, analytical, and writing skills and is the final major project required prior to graduation. A copy of the report is retained by the Journalism Program for future reference by other students.

Case Studies 2 476-203

This course is based on Intro. to PR and Case Studies. It will continue to consider a selection of PR case histories covering a variety of situations and conditions. When feasible, guest lecturers will describe an case.

Child Abuse 112-322

This course will focus on some of the common reasons why child abuse occurs in our society. It will also elaborate on the signs that may indicate abuse, and the pertaining laws surrounding this problem.

Child Care Work Methodology 1 113-312

This course deals with the Child Care Worker, who he is and what his role is; the emotionally disturbed child or adolescent, what his problems are and some of the reasons for this; the relationship sought between Child Care Worker and child/adolescent; practical day-to-day problems faced in child care work and ways of handling them; various sometimes conflicting methods of treatment. The emphasis will be on the development of practical child care work skills.

Child Care Work Methodology 2 113-410

A continuation of Child Care Work Methodology 1 with an emphasis on developing practical day-to-day Child Care Work skills.

Co-Operative (Fieldwork) 471-602

To give students an opportunity to: work in a packaging studio, office, plant research organization etc.--checking out the skills learned in the previous semesters; to measure these learned abilities against the demands of an actual working environment; and to experiment with a work experience in an area of packaging that may offer an interesting extension of those learned experiences.

Colour T.V. Production 1 478-310

This course is designed to introduce the basic technical and operational techniques required to produce simple television programs in the colour studio.

Colour T.V. Production 2 478-410

"Hands-on" production techniques introduced in the previous course are expanded and refined during this semester. Students will be assigned production crew positions and will produce a variety of television program formats in the colour television studio. The purpose of this semester is to provide students with a broad basis of experiences in order to competently and creatively develop the skills necessary to succeed in the third year of television production.

Colour Theory 473-112

An introduction to the physical, chemical, and psychological aspects of colour and their application to design.

Community Development 123-428

The purpose of the course is to provide the student with an overview of the community development process from a Canadian perspective. Discussion of community development theory, coupled with a practical examination of cases, will help the student understand the developmental concept in community work.

Community Intervention 113-512

In this course, the student will be introduced to community-based Child Care Work. He/she will develop the skills necessary to develop and implement intervention strategies outside the confines of a direct service treatment agency.

Community Pub. Relations 123-223

This course is designed to enable the development of basic community-oriented organizational skills.

Community Services 113-111

This course will familiarize the student with the relevant legislation and community resources that he/she will use in their work with disturbed children and their families.

Composition 3 137-310

These courses familiarize students with the craft of harmony and counterpoint through: a) a study of musical examples, b) exercise material based on certain harmonic/melodic skills, and c) compositions created by students.

A number of styles of composition will be explored and major projects will be assigned to reflect the student's individual styalistic preferences. Semesters 3 & 4 are heavily weighted with theoretical topics in order to equip studentswith the necessary craft to allow them to benefit from a study of more "pure composition" in semesters 5 & 6.

Composition 4 137-410

Refer to course description of Composition 3 (137-310).

Composition 5 137-510

Refer to course description of Composition 3 (137-310).

Composition 6 137-610

Refer to course description of Composition 1 (137-310).

Computer Aided Design 2 473-504

This course focusses on practical applications of computer aided drafting and includes operation of the AUTOCAD system, completing drafting assignments using this technology and custom menu design and implementation.

Computer Applic.-Tree Inventory 164-405

This Urban Tree course will introduce students to the ever-increasing use of computers in urban tree management. Areas of use will include I.P.M., street tree inventory and maintenance records, budgeting, tree planting schedules and species performance monitoring.

Computer Graphics 1 470-305

This introductory course includes an overview of computer technology and applications plus a basic working knowledge of micro and mini computer-based graphics software.

Computer Graphics 2 470-405

This course focusses on rendering specific graphics assignments utilizing "paint package" software plus operating advanced two and three dimensional graphics systems.

Computer-Controlled AV Equipment 479-217

The course content is presented by means of classroom seminars, guest lecturers and equipment operation demonstrations. All will deal with computer equipment features and applications followed by supervised lab time in which the student will perform various operational exercises. Students should be aware that individual projects will require considerable time outside of the scheduled classes. In order to make the production and presentation equipment more accessible to all students in the Audio Visual Technician Program, facilities will be made available beyond the regular program hours.

In order to limit the materials and production costs, students are encouraged to modify and adapt their previous multi-image projects.

Computers for L.A.S.A. 124-109

Introductory, basic level, hands-on course in computer usage. The object of the course is to teach the skills necessary to enable the student to compute in a word processing mode. Elementary data base management will be included.

Construction Practices 1 152-518

The main purpose of this course is to fully expose the senior landscape student to the complexities and intricacies of landscape construction projects. The students undertake typical project(s) and are responsible for all aspects of detailing, scheduling, pricing, and ordering in addition to the actual construction itself.

Construction:Ind. Safety Cert. 164-403

To prepare Urban Tree students for approaching full-time employment, a detailed examination of the Occupational Health and Safety Act, Highway Traffic Act, and appliable utility safety legislation will lead to an electrical utilities safety certificate.

Contemporary Family 122-209

This course will explore the contemporary family. The dynamics of the "well" family and the family in trouble will be explored. The student will study various courses of family problems and strategies and resources for support and change.

Cosmetic & Beauty Management 1 133-550

Students will learn the management skills required by the cosmetic industry. Emphasis is placed on the administration, marketing, personnel and budgeting techniques required in the start-up or management of self-improvement centres, beauty spas, fitness studios, skin and nail care salons, cosmetic and beauty salons, wholesale cosmetic distributors and manufacturers.

Cosmetic & Beauty Management 2 133-650

Refer to course description of Cosmetic & Beauty Management 1 (133-550).

Cosmetic & Beauty Practice 1 133-551

Students will receive instruction in a variety of professional cosmetic, application techniques used in fashion photography, advertising layout and television, film and productions. Students will apply make-up on clients in workshop situations using techniques taught in this course.

Cosmetic & Beauty Practice 2 133-651

Refer to course description of Cosmetic & Beauty Practice 1 (133-551).

Cosmetic Applications and Sales Techniques 1 133-301

A practical course offering instruction in the professional application and sale of cosmetics. Students will learn: colour theory, contouring, shading and high lighting for corrective make-up applications. Simple skin care routines and products will be studied for pre-make-up application purposes.

Cosmetic Applications and Sales Techniques 2 133-401

Application sessions will alternate with theory to develop the make-up skills required to deal with the demands of ethnic, television and video make-up.

Cosmetic, Beauty and Health Theory 1 133-300

A general examination of the cosmetic, beauty and health industries. Students will study the composition of cosmetic products and fragrance, the effects of nutrition and exercise on weight control and skin health. Current trends and techniques of the industries are studied as well as: bacteriology and hygiene, physiology, chemical ingredients found in cosmetics and the FDA rules and regulations of their use. The effect of fashion and science on cosmetic development is examined.

Cosmetic, Beauty and Health Theory 2 133-400

In this course the wellness of the skin, body and hair and the role of cosmetic products and medicine in maintaining health and appearance is taught. Marketing trends and employment opportunities are examined also in the light of current expectations of the industry. Practical salesmanship sessions are conducted.

Costume Design 1 481-322

Students will be introduced to a design approach to a specific Theatre piece (play, musical, etc.). By use of charts, analysis of text, research, discussion of execution with professionals, and creating costume drawings.

Costume Design 2 481-422

Students will be introduced to the perceptions of fashion and the fundamentals of costume design for the stage.

Costume Design 3 481-522

Refer to course description of Costume Design 2 (481-422).

Costume 1 481-205

This is an introductory course in costume history and the basic elements of costume construction. Students develop a sense of coordination of costumes with set and light design.

Counselling Tech. 1 (MRC) 112-216

The emphasis in this course is on the acquisition of those skills which are necessary in order to become an effective helper. Several counselling models will be practiced through role playing.

Counselling Tech. 2 112-321

This is a continuation of Course 112-216.

Criminal Justice Administration 124-202

To provide the student with a basic understanding of the Criminal Justice system in Canada today including the statutes involved and the personnel and structures created by the statutes.

Criminal Legislation 1 124-303

To provide students with the theory of procedural criminal law and its application. Emphasis will be placed on the legitimate use of force, powers of arrest, search and seizure, compelling the appearance of both the accused and witnesses. Bail procedures and prerelease of offenders will be discussed in detail as they apply to the Police Officer's role.

Criminal Legislation 2 124-401

Students will conduct in-depth studies of the application and interpretation of substantive law in specific offences. Investigative procedures, preservation and presentation of evidence will be studied in selected offences where expertise is required because of the nature of the crime.

Criminalistics 1 124-302

The course will provide the students with basic knowledge and skills in the areas of fingerprinting, forensic science, and evidence--its forms, values and significance to a prosecution.

Criminalistics 2 124-406

Refer to course description for Criminalistics 1 (124-302).

Criminology and Corrections 124-403

This course is the study of crime and punishment. It includes a survey of the many current theories of criminal behaviour. The course investigates the issues confronting our understanding of deviant, criminal behaviour. The course also looksat the sentence of the courts. Emphasis will be placed on the effect of the various court sentences.

Crisis Intervention 124-704

The student will be made aware of the nature of crisis occurring in a variety of human relationships for the purposes of understanding the quality of life as it relates to the urban technological environment.

This course will give priority to various conflict patterns requiring the involvement of the police at the public request and in the public interest.

Critique 1 475-139

Students will analyze in detail all aspects of Coven, paying particular attention to the overall effects of layout and design, use of pictures, choice of story position, effectiveness of headlines, accuracy of content, quality of paste-up and quality of editing.

Critique 2 475-239

Refer to course description of Critique 1 (475-139).

Cross Cultural Skills 123-326

This course is designed to provide a basic introduction to the multicultural and miltiracial character of Canadian society. The new challenges faced by the human services will be examined. Emphasis will also be given to developing problem-solving, cross-cultural skills.

Current Issues in Human Services 123-431

This course is designed to develop the student's ability to analyze and understand the development and current status of the human services in Canada. The content of this study will be contemporary political and economic trends and their impact on future options for the human services.

Customs and Immigration Procedures 124-208

The course will be divided into two parts, the first part will deal with the Immigration Department as it pertains to the duties of an immigration officer; the immigration act and its application to admissible and non-admissible classes of persons.

The second aspect of the course will deal with the Customs Department as it pertains to the duties of a Customs Officer; the Customs Act as it relates to importing of goods into Canada.

Dance and Choreography 1 137-315

The course teaches the students skills in basic dance and choreography through three fundamentals: a) exercise and warmup with basic knowledge of their bodily range of movement; b) basic commercial dance moves and combinations (jazz, tap, ballroom, ballet and character); and c) choreography of ballad, standard, swing, latin, up tempo and broadway music.

Darkroom Techniques 3 480-321

This course will increase the knowledge and skill level of the student. Various special effects and techniques will be applied to create maximum usual impact in a photograph. Quality and cost control is part of this course. Topics and assignments deal with: push process, archival process, sabbatier effect, murals, multiple and double printing.

Design Applications 472-251

As a follow-up to elements of design, this course is a study of the ways in which various elements and principles of design are applied to actual products. Through the study of case histories, product analyses and design surveys, the students become familiar with a wide variety of influences which effect the design process.

Design Futures 472-353

A continuation and development of elements of Design and Design Applications, this course deals specifically with those influences which have an impact on future design developments.

Design Graphics 472-354

This course will study the nature of graphic influences on industrial design. The origins of graphics, typography and reprographic processes will be related to actual use in the design and production of symbols, signage, packaging, displays, publications and product identification.

Design Management 472-655

A presentation, seminar and survey course, with guest professionals conducting a majority of the sessions. The role of the industrial designer will be studied from a variety of viewpoints in relation to the business topics identified.

Design Presentations 1 (Drawing Fundamentals) 472-152

A course structured to develop drawing, sketching, and basic rendering skills and techniques used for communicating design concepts, recording visual material and illustrating ideas and variations. Emphasis is placed on developing basic perceptual skills to encourage fluency in applied drawing skills and perspective theories.

Design Presentations 2 472-252

A continuation of Design Presentations 1 in which more advanced principles of perspective are introduced along with a wide variety of media and drawing/rendering techniques.

Design Presentations 3 472-352
A continuation and development of Design Presentations 2, this course emphasizes media, materials and methods used for visually communicating and presenting design information at various stages in the design process.

Design Presentations 4 472-456
A course in advanced studio methods for Industrial Designers. Basic photographic principles are introduced and camera/lighting techniques are practiced. Related presentation techniques used in advertising, display, promotion and product service fields are introduced.

Design Theory 1 473-101
A series of lectures exploring the fundamentals of two and three dimensional design. Emphasis is upon the universality of these basic tenets and theories.

Design Theory 2 473-201
The course will provide an in-depth examination of the dynamics of modern design theories. Particular attention will be paid to developing the practical skills needed by professional designers in the field. Topics willinclude the automated office and the analysis and critique of existing spaces in the city.

Design 1 470-108
Design 1 is the introduction to graphic design. Here the student will be introduced to the various tools used in the design field. Theories will be taught, concepts for advertising with the use of abstract shapes, what is meant by the vignette or free form shape, working with the gray scale, and colour theory. The student will be required to solve appropriate assignments using theories and techniques.

Design 2 470-208
Emphasis in Design 2 is based not only on further developing the students rendering techniques, but now on the creative concept, that is the idea, copy approach (headline), layout and overall use of the advertising media selected. The use of photography as an illustrative medium will be introduced.

Developmental Education Module 112-428
This course will give practical experience in agencies/schools that train/educate developmentally handicapped people.

Directing 1 481-309
Directing is taught to Performance students in order to provide the perspective of the viewer to the actor. Each performance must learn the skills and needs of the director to more fully participate in the rehearsed process.

Directing 2 481-409
Refer to course description of Directing 1 (481-309).

Direction 1 478-131
In this introduction to the work of the film and television director, with emphasis on short films and TV productions, students will learn about the work and responsibilities of the director and the need for extremely close cooperation with the producer, production manager, performers, and all other people involved in production. Students will prepare and direct several projects, including all the assignments of the Super-8 Film Production Workshop, and will be expected to arrange shooting schedules and film shoots with other members of the production crew. This course is directly related to Scripting 1, Super-8 Film Production Workshop 1, and Communication 1.

Documentary Film Styles 1 478-142
This course examines the high degree of professionalism and creativity required to produce documentary films. The student is introduced to many films of the genre and to the history and development of documentary films to the present time. Many films will be screened so that the student will understand and appreciate the different visual and other creative concepts used in this medium.

Drafting & Detailing 1 473-103
A lecture/studio course where students are assigned projects. The 5 hours per week may be split into two separate structures, for example: 2 hours for freehand assignment and 3 hours for a drafted project or 5 hours for one assignment. Assignments are due at the end of the class unless stipulated otherwise. Students begin the class with projects from the previous week returned, followed by a lecture with the new assignment. Class attendance and punctuality are most important. No assignments are handed in late unless medical or compassionate leave has been given prior to the date. The instructor is available by appointment for extra assistance.

Drafting & Detailing 3 473-307
Review of drafting standards, design, method of drawing, construction, and finishes. A thorough discussion of criteria involved in the design and detailing of several projects such as shelving, washroom cabinetry and lighting, and a complete kitchen layout, and details. A full investigation of available materials, hardware and lighting are a relevant part of all projects.
Prequisite: Drafting and Detailing 2

Drafting & Detailing 5 473-507
Continuation of Drafting and Detailing 4. The course is designed to give the student a thorough introduction to residential construction and some major components as they relate to the Interior Design student.

Drafting & Documentation 6 473-608
Problems are discussed on specifications, constructioncontracts, mechanical and electrical applications of ceilings, all as they relate to commercial design and based on a specific core problem. The final design problem is detailed with regard to 3 major components.

Drafting and Detailing 2 473-203
A continuation of Drafting 1 with further development of technical skills. The following will be taught: procedures used in preparatory architectural floor plans, the metric system, wood furniture construction and shades and shadows.

Drafting and Detailing 4 473-403
The course will be utilizing the information obtained so far to relate to current design projects and prepare working drawings and details for all or part of these projects.

Drafting 1 481-123
Figurative drawing with emphasis on the human form. Using pencil and paper, also brush and ink. An emphasis on black and white drawing as opposed to polychrome.

Drawing 1 481-124
Refer to course description of Drawing 1 (481-123).

E.F.P. (TV Workshop) 478-311
Refer to course description of Film, Sound & E.F.P. Workshops (478-302).

E.F.P. (TV Workshop) 478-411
Refer to course description of Film, Sound & E.F.P. Workshops (478-302).

Ear Training 1 137-106
Ear Training 1 is an introductory course designed to develop the necessary fundamental aural skills for record copying, improvisation, arranging, the "faking" of tunes, sight singing, and musical composition.

Ear Training 2 137-206
Ear Training 2, which will continue to develop aural skills, introduces lifting techniques, part singing, silent dictation, tonicization, turnarounds, non-diatonic modes, and spread voicings. Aural recognition of topics covered in Theory 1 and 2 will be stressed when appropriate.

Ear Training 3 137-306
This course is a continuation of Ear Training 2. Emphasis is placed on the transcription of recorded music.

Ear Training 4 137-406
This course is a continuation of Ear Training 3. Emphasis is placed on the transcription of recorded music, and the focus is on the aural perception and recognition of writing and improvisation techniques studied in Theory 4.

Editorials/Reviews/Copy Editing 475-136
During this course students will study newspaper features, editorials, columns and reviews. Emphasis will be placed on the practical writing of each. Headline and cutline writing will be studied and special attention will be given to copy-editing techniques.

Effective Speech 1 476-102
In the field of Public Relations, where the effective persuader is rewarded and the deficient penalized, effective speaking techniques are essential. The course is designed to help you acquire the skills to speak with confidence in both vocational and social situations.

Effective Speech 2 476-202
This course will further develop effective speech through the teaching and practice of good oral communication techniques.

Element of Fundraising 476-411
This course will examine in detail fund-raising campaign procedures, techniques, goals and programs.

Elements of Accounting 221-010

This course provides an introduction to the subject of accounting. The full accounting cycle is covered from the introduction of data to the accounting cycle through its detailed recording. Practice will be obtained in the preparation of financial statements, maintenance of subsidiary ledgers and payroll records.

The objective of the course is to give an insight into the mechanics of accounting so that the student may have an understanding for reference in business situations or as a foundation on which he may continue in advanced study of the subject of accounting.

Elements of Design 472-153

An introductory course in the basic concepts and elements which are used in the design process with special emphasis on those elements which most strongly relate to a 3-dimensional design. Composition, colour, and texture are among the class topics.

Elements of FILM/TV 476-133

This course will cover the history of film and T.V. as P.R. tools; the different jobs involved and the equipment used in the production of film and T.V. and working with supply houses.

Elements of Photographic Design 480-203

An extension of Design 1. This course will continue to provide the student with a sound understanding in many areas of composition, design and layout. The assignments will provide the groundwork directly related to problems and practical work. Emphasis will be placed on the development of the students visual awareness in our everyday environment as it applies to design and photography.

Elements of Photographic Design 1 480-103

A sound understanding of composition and design is the basis of good photography. The student will develop a visual awareness of the principles of good design through demonstrations and assignments on topics such as composition. Perspective, tone and texture, proportion and balance. The concept of thinking.

Environmental and Business Studies 473-135

Course will attempt to familiarize students with a range of concerns and activities associated with the environmental professions, business management and cost analysis.

Environmental Studies 1 112-108

This course studies the profession and role to be performed by the Developmental Services Worker - (Mental Retardation Counsellor). Explored ar the educational elements of the Professional Helping worker and the milieu where the services are offered. Human Services is a rather recent name for services that embrace many areas of study that were the domain of social workers or special care-givers. This course concentrates on the self-development of the profession of the Developmental Services worker and the range of skills to be acquired to being about change in the life cycle of the developmentally handicapped person.

Equipment Maintenance and Safe Operation 1 164-203

This Urban Tree course covers the theory of operation and maintenance of two and four cycle engines. It is intended to familiarize students with safe operation of various pieces of powered equipment commonly utilized in the urban forestry field including: chain saws, brush chippers, stump grinders, spray rigs and aerial devices.

Ergonomics 472-554

A course in applied human physical measurement and dynamics as it relates to Industrial Design. Control panel layout and seating are major topics.

Ergonomics 1 117-304

This course, required for students in the Rehabilitation Worker Program, is designed for the student with a limited background in ergonomics. The course content is structured to progress from a general overview of ergonomics and barrier free design to the consideration of the specific ergonomic requirements of clients in residential and vocational rehabilitation.

Family Care Applied Training Module 112-407

This course is designed to provide the student with basic nursing care skills and practical experience in administration of medications.

Family Dynamics 1 113-302

This course will deal with the family from a systems viewpoint. Topics covered will include the family life cycle, task and accomplishment, boundaries, triangles, roles, birth order, circularity, complementary and symptom function. Role playing and experiential exercises will be used to develop conceptual and perceptual skills in assessing family dynamics.

Family Dynamics 2 113-401

A continuation of Family Dynamics 1.

Family Intervention 1 113-513

This course will deal with the development of skills in working with families. Each will roleplay a therapist and receive supervision from peers and the instructor on their skills. Topics covered will include assessment, contracting, treatment and termination, as well as a variety of intervention techniques.

Family Intervention 2 113-613

A continuation of Family Intervention 1.

Fashion & Cosmetics Employment 1 133-552

Emphasis will be on the practical area of learning with supervision. Students will be placed in a variety of areas, during a 4-week period, related to career employment. Areas of employment will include cosmetic and beauty trade shows, beauty salons, beauty spas, health and fitness centres, photographic and television studios, specialty and boutique stores, wholesale fashion and beauty agencies.

Fashion & Cosmetics Employment 2 133-652

Refer to course description of Fashion & Cosmetics Employment 1 (133-552).

Fashion and Beauty Promotion 133-405

Students will learn how to organize fashion shows from the beginning to the polished professional "finale". Areas of study will include: auditions, model selection, stage and set design, press and media liaison, fashion commentary, merchandise coordination, fittings and music selection.

Fashion Coordination 133-305

This one semester course involves planning and organization for fashion coordinations; this includes effective dressing for all occasions, wardrobe planning, accessory and colour coordination.

The study and interpretation of seasonal fashion trends will also be an important aspect of this course, as well as figure analysis and how to camouflage imperfections. Students may enter the professional field as freelance consultants or Beauty and Fashion Advisors for department and specialty stores.

Fashion Industry Orientation 1 133-304

Guest lecturers from the fashion, beauty, cosmetics, TV and modelling industry will offer students the inside view of their specific areas. Trips will be organized to fashion locations and key events such as cosmetic and fashion trade shows, fashion shows and promotion. Included in this course is a study of the fashion leaders and innovators, fashion publications, and fashion terminology.

Fashion Industry Orientation 2 133-404

Guest lecturers from the fashion, beauty, cosmetics, TV and modelling industry will offer students the inside view of their specific areas.

Trips will be organized to fashion locations and key events such as cosmetic and fashion trade shows, fashion shows and promotion. This course continues the study of the fashion leaders and innovators and fashion terminology.

Fashion Marketing Techniques 1 133-503

As a continuation of Wholesale and Retail Fashion Industry, this course is a detailed study of the principles of consumer-oriented marketing and behaviour, as they relate to the fashion industry. All the basics of the marketing mix are examined: product, packaging, price, distribution channels and promotion. Students are taught to develop cost benefit analysis, market research studies, advertising and media plans. A case study approach complemented by classroom instruction will be used.

Fashion Marketing Techniques 2 133-603

Refer to course description of Fashion Marketing Techniques 1 (133-503).

Fashion Modelling Cosmetic Practice 1 133-501

A study of practical cosmetic application used in fashion photography, runway fashion shows, video film, stage productions and auditions. Application techniques will range from corrective day-

wear to specialized fantasy used currently in fashion magazines and fashion shows. Related skincare products and routines of application will be outlined. Applications of make-up will be in conjunction with fashion photography sessions for portfolio assembly.

Fashion Modelling Cosmetic Practice 2 133-601

Refer to course description of Fashion Modelling Cosmetic Practice 1 (133-501).

Fashion Modelling Employment 1 133-504

Emphasis will be on the practical area of learning with supervision. Students will work in a variety of areas of related employment in the second year in specific work assignments and field placement bookings. Students will be placed in such areas as fashion shows, tradeshows, wholesale agencies, boutiques, department stores and television studios. Since most work will be performed after an audition, the type of work a student will be selected for will dictate future employment suitability.

Fashion Modelling Employment 2 133-604

Refer to course description Fashion Modelling Employment 1 (133-504).

Fencing & Stage Combat 481-330

An introduction to the methods of performing a realistic and safe stage fight. The course will cover the basic movements and strokes used in Rapier sword play and unarmed combat.

Field Orientation 112-125

This course is designed to provide students with an introduction to the services for developmentally handicapped people. Through visits to various agencies and in-class discussions, you will gain an understanding of the role of a Developmental Services worker in residential and special services.

Field Placement 151-201

This course is intended to allow for feedback from the second semester field placement. Highlights and problems will be discussed with suggestions for improvement and possible re-direction in study attention. It is intended as a problem- and success-sharing course.

Field Practice Orientation 123-123

This course will provide an overview of the various field training sites and their learning opportunities.

Field Practice 1 112-126

This course will introduce students to the role of the Developmental Service worker. You will be assigned to an agency that serves developmentally handicapped people for a four-week block placement.

Field Practicum 1 117-211

This field practicum places special emphasis on communication functions and communications disorders shown by special needs persons. The primary emphasis of the course is: 1) knowledge about communication disorders and their impact on child and adult development; 2) cooperation with diagnostic services which develop plans to remediate communications problems; 3) introduction to alternate communication systems such as sign language, Braille, Blissymbolics, word/picture/symbol boards, and microcomputer or technical aids; and 4) development of "beginners" literacy in sign language.

Field Practicum 2 117-405

This course will focus on the financial systems which compensate special needs persons due to: 1) employment status factors or 2) disability and health benefits factors.

The concept of compensable injury or illness will be explored as the needs of target groups are explored. Income maintenance and services systems which will be reviewed are Canada Pension, Family Allowances and Assistance Programs, Unemployment Insurance and Health Insurance. Compensible injury and illness will be explored in criminal injuries, worker's compensation, and pension and benefits systems of the private sector.

Field Studies 151-302

The purpose of this course is to give students an overview of agencies which offer interpretive programs. A look at structure theory, methods and philosophies will take place, as well as interaction with the existing programs when applicable. A facility analysis will be completed for each site to aid in understanding a given facility. In addition, the students will plan a week-long field trip to take a look at interpretive facilities which can't be reached in one day. The destination of this trip is decided by the class.

Field Work 476-112

Spend five days a week working in industry for the semester. Students are required to be at the college one day every month to make progress reports and take part in discussion about their work. Groups are tutored separately each week.

Field Work 1 113-206

The student will spend two days a week in settings for children and adolescents with emotional problems. This will take place in residential treatment centres, group homes, special nurseries, etc.

Field Work 2 113-310

The student will spend two days a week in settings for children and adolescents with emotional problems. This will take place in residential treatment centers, group homes, special nurseries, etc. The placement will carry over two semesters.

Field Work 3 113-409

A continuation of Field Work 2.

Field Work 3 (R.W.) 117-305

This is an intensive experiential placement to provide the opportunity for the broadening and refining of skills acquired in Year 1 of the program. The student will now be expected to contribute significantly to the work of the agency to which he/she is assigned. Students will assist in the design and operation of specificprograms under the direct supervision of an agency staff member and a program field placement supervisor. Predetermined competencies related to the placement experience will be negotiated in a learning contract with the school and a job description with the agency.

Field Work 4 (R.W.) 117-408

This is an intensive, experiential placement to provide the opportunity for the broadening and refining of skills acquired in Year 1 of the program. The student will now be expected to contribute significantly to the work of the agency to which he/she is assigned. Students will assist in the design and operation of specific programs under the direct supervision of an agency staff member and a program field placement supervisor. Predetermined competencies related to the placement experience will be negotiated in a learning contract with the school and a job description with the agency. Activities of this course include:

1) two days a week during Semester 4 assigned by the college in consideration of the individual student's present skill level, project availability, and sponsor receptivity; and 2) the production of a deliverable project contracted to meet agency needs and program/student warning goals.

Film & T.V. Program Formats 1 478-133

The course examines the internal structure and style of a variety of film and television program formats. This is accomplished through screenings of sample productions, lectures, and discussions. The course is closely related to script writing and productions to be viewed are examples of the kinds of work the students are expected to produce in semesters 3,4,5 & 6 will be shown.

Film/TV Directing 1 478-135

This course develops directorial skills and deals with particular problems associated with specific types of filmand television programs such as: news, current affairs, documentaries and specialized craft formats. It will provide students with the theoretical and practical knowledge necessary to solve problems associated with the completion of a film or television production from the directorial point of view.

Film, Sound & E.F.P. Workshops 478-402

Refer to course description of Film, Sound & E.F.P. Workshops (478-302).

Film, Sound & E.F.P. Workshops 478-302

This course enables the student to learn actual "hands-on" production techniques in production crew format on a three week rotation. Each crew will spend every third week in each workshop situation. Each workshop consists of specific in-class exercises as well as additional multi-discipline assignments. These assignments generally are performed in crew format. The student must respect all elements of eqiupment care, security of equipment and realize that it is absolutely essential to cooperate with all members of the crew in the execution of assignments.

First Aid 112-112

This course will provide the student with the skills needed to deal

with emergency health-related situations.

First Aid & Accident Prevention 759-103

This course will teach the student practical skills based on first aid principles and standardized procedures related to emergency treatment of persons in accident situations. Consideration will be given to causes and prevention of accidents and accidental injuries. Upon successful completion of the course, the student will be awarded the St. John Ambulance Standard First Aid Certificate.

Fitness Techniques and Practise 1 133-508

Students will examine fitness trends as they influence the marketing of the beauty, fashion and health industries. An examination of the choreographic, physiological and instructional aspects of fitness will be included. Students will be taught to train and evaluate demonstrators, runway models and fitness instructors as used in fashion shows, beauty spas, video and advertising productions.

Fitness Techniques and Practise 2 133-608

Refer to course description of Fitness Techniques and Practise 1 (133-508).

Floral Design Lab 1 153-115

This course will apply the basic fundamentals of design as covered in Principles of Floral Design 1. The construction of basic table arrangements, corsages and wedding bouquets will be covered; as well as basic drawing/sketching techniques, control of stock perishables, cutting, storage and care, packaging of arrangements, cut flowers and a trip to the floral square and wholesale houses.

Floral Design Lab 2 153-104

This course is designed to prepare the student to create traditional floral designs saleable for a retail flower shop. Emphasis will be on following the elements and principles of design and on construction. The student will be made aware of the special treatment of flowers for weddings, funerals, special holiday events, table designs, colour combinations, pricing and free-style Ikebana.

Floral Design Lab 3 153-301

This course will prepare the student to become a more competent and efficient practical designer in all areas of Floral Designs. This will evolve through further application of Principles and Theory as practiced in Lab 2 with special attention to costing, time and motion, New Trend and Theme designs. The student will learn to adapt his/her knowledge to the future employers' work expectations, whether in costing procedure or design structuring.

Floral Design Lab 4 153-407

This course is a continuation of Floral Design Lab 3. At the completion students should qualify to enter the field of the Retail Flower Industry with a satisfactory knowledge of Floral Design. The student will learn to design to industry standards and be able to adapt his/her knowledge to any situation encountered in the field of design.

Floriculture 2 152-408

Greenhouse operations and procedures will be covered in this course. Greenhouse labs will expose students to practical applications of greenhouse production techniques.

Flower Shop Management 153-303

The Flower Shop Management course is to prepare the student for total involvement in managerial responsibilities of the retail flow industry, to be knowledgeable of the various buy procedures for product resale in reference to the many different types of retail florist outlets that are in the industry today. The student will also be exposed to the facts of hiring and discharging of employees in respect both to personal and government responsibilities, including income tax deductions, pension plans, unemployment insurance and other extended benefits. The management course will also show the many benefits from extension programs relative to the industry for owners, managers and employees in both design and business fields.

Flower Shop Operations 1 153-116

This course is an introduction to expose students to the basic procedures of a flower shop operation. The student will participate in sales and will be responsible for staffing our Flower Shop on Campus. We will cover the care, conditioning and storage of perishables, also packaging, wrapping and boxing flowers, general flower shop operations, order taking, customer relations and sales.

Flower Shop Operations 2 153-216

This course further prepares the student for flower shop operation. The student will participate in all shop operations and will be responsible for staffing our flower shop on campus. Lerning opportunities lie in salesmanship in general and in specific areas of wedding and funeral sales, window and interior displays, store layout, efficiency and productivity, delivery and image, and mark-up procedures on products and labour percentage mark-ups on designs.

Flower Shop Operations 3 153-316

This course further prepares the student for Flower Shop operation allowing opportunities to learn management skills necessary by being responsible for management of the College Flower Shop for designated periods. All aspects of maintenance and display for shop interiors, exteriors, windows and display booths. Cash and Carry sales, advertising graphic concepts and personnel instruction--Humber College Flower Shop.

Flower Shop Operations 4 153-416

This course further prepares the student for flower shop operation allowing opportunities to learn management skills necessary by being responsible for management of the college flower shop for designated periods. Designing of the college window display, changing its theme according to season or events.

Setting a budget and working within that budget. Dealing with wholesalers and studying shop procedures, inventory control, cost sheets, cash control, wastage, daily sales sheets, quality control, and inventory return. Cooler displays--cleanliness, organization, colour coordination, grouping and signage. Packaging and shop image.

Freehand Drawing 1 473-115

Introduction to freehand drawing utilizing both organic and man-made objects: drawing from the human figure; exploring the essential areas of 2-dimensional design, form, line, shape, mass and tone to communicate visual ideas, concepts, thoughts.

Functional Keyboard 1 137-107

This course helps the student acquire keyboard skills in applied theory (harmonic structures, chord/scale concept, scales, chord progression) and basic "legit" reading. It also introduces the principles of keyboard improvisation.

Functional Keyboard 2 137-207

Refer to course description of Functional Keyboard 1 (137-107).

Functional Keyboard 3 137-307

Refer to course description of Functional Keyboard 1 (137-107).

Functional Keyboard 4 137-407

Refer to course description of Functional Keyboard 1 (137-107).

Fundamentals of Reporting 475-100

This course will lay the foundations for all news writing and reporting for all media. Heavy emphasis will be placed on analytical thinking in terms of news values and on the development of a clear, concise, and readable style of writing.

Garden Centre Operation 152-204

This course will familiarize the student with the diverse operations of a garden centre. Topics include planning, personnel, pricing, location, merchandising, displays, advertising, maintenance of stock, customer relations, credit and financing.

Government Regulations 1 471-306

This course introduces the basic government regulations impinging upon the work of a package designer and attempts to demonstrate how such regulations can be included without diminishing the impact of good design.

Graphic Applications for Media 479-122

The course is presented by means of demonstrations and audio-visual lab projects. The purpose of this semester in the graphics area is to help the student tie together all the graphic knowledge he has learned, and to put together a portfolio that has the polish of a professional portfolio. There will also be some illustration taught for the audio visual applications.

Graphics & Animation 1 478-139

This course will examine the aesthetics and technical requirements of graphics for film, television and A/V presentations and examine various styles of animation, through illustrated lectures and practical assignments.

Graphics for Interior Design 473-110

Planned to teach the basics of design in graphics, specifically in such areas as applied to Interior Design students. There will be involvement in the area of corporate imagery from a historical and the present point of view. The history of lettering, the study of present day lettering methods will be examined and practices. Poster designing and signage for amll and supermarket areas; stores and shops. Supergraphics for use in special areas, (store departments) for example. Point of purchase advertising and associated materials such as menus for restaurant areas, bags for supermarket and boutique, graphic materials that might be part of the total design sphere of an Interior Design student. Total corporate image.

Graphics 1 470-101

Here concept is accentuated in practical advertising assignments where knowledge and skills already gained in Design 1 are applied.

From mini, to size-as lineals, to slick rough and comprehensive in various advertising media.

Graphics 2 470-201

Technical abilities developed through semester 1 will provide new possibilities in graphic finesse and technique. Assignments will provide opportunity to display advertising related projects in layout form through line, wash, two and four colours. Emphasis will remain on original concepts, the marriage of copy and the visual.

Graphics 3 470-301

Graphics 3 involves the student in a more advanced aspect of the graphic arts discipline. They will be given more complex assignments in problem solving, designing for the various communication medias from the advertising industry. Such as, booklets and brochures, to designing posters, laying out effective newspaper advertisements, outdoor billboards, and co-op direct mail. The student is encouraged to delve into his/her creative mind to come up with compelling creative ideas to answer each given assignment. Plus, emphasis is put on each student to develop their rendering skills to a more professional standard.

Graphics 4 470-401

This being the final semester in the core subject Graphic Design, the student should now be concentrating on developing each assignment to a professional standard, in order to complete his/her portfolio for introduction into the grahics industry. Once again the projects chosen are all bonified examples of the type of work the graphic designer will be expected to do. Such as designing point of purchase material involving counter cards, posters and product displays, effective and creative direct mail promotion pieces, multi-fold dye cut brochures, booklets and broad sides, magazine advertising, retail-newspaper ads, plus a thesis project including every aspect of the design field the student has been taught. This thesis project not only tests the students ability as a problem solving designer it should also serve as a real exciting portfolio showpiece of which the student should be proud.

Greenhouse Floriculture 1 153-306

Plant propagation methods will be covered in the classroom and production labs in the College greenhouses. A weekly plant identification lab and test is held in relation to this subject. Students will carry out and be evaluated on a series of production projects and lab participation.

Greenhouse Floriculture 2 153-406

Plant care will be covered in classroom and production labs in the greenhouse. Bi-weekly plant identification labs and tests will be held in relation to this subject. Greenhouse operations will also be covered in this course, including new developments in the greenhouse industry.

Group Home Management 122-406

This course will teach the practical aspects of managing a group home.

Group Theory 1 113-307

This course involves the study of group dynamics, what occurs in groups and why, the stages of development groups go through, roles of leaders and participants, techniques of dealing with groups of children, adolescents and their parents and the therapeutic use of groups. Use will be made of the class group itself for experiential learning.

Group Theory 2 113-406

A continuation of Group Theory 1.

Group Work Skills 123-224

One of the major skills required by a human service worker is the ability to work in a group context. Whether one is working with fellow staff members, community boards, committees or advisory groups, the success or failure of these groups is often dependent on the ability of individuals to work collectively. Poorly-run groups are often non-productive, time-consuming and frustrating while a well-run group is generally creative, efficient and rewarding. This course will prepare the student for their role of assisting the process of group development and maintenance.

History of Art 472-155

The course will trace the development of western man as demonstrated in visual forms, and will establish the relationship between permanent forms such as architecture, monumental sculpture, Fresco painting and more portable forms such as furniture, easel painting, textiles and the like. Semester one examines Southern and Western Europe from early civilizations until the renaissance.

History of Art 2 472-254

A survey of nineteenth and twentieth century art and architecture with special application to the three dimensional aspects. This course will consist of promoting student research into aspects of the visual arts and the roles of the artist and the designer in coming to terms with a predominently industrial and technological society and its accompanying reactions. Constant references will be made to past solutions of the artist and his environment and modern analogies.

History of Industrial Design 472-355

A study of the historical foundations of Furniture and Industrial Design. Visual references are combined with studies of the origins of styles, forces of change, development of skills and technology, and potential uses of historical resources. Analytical skills are developed through group discussions and critiques.

History of Packaging 1 471-108

An exploration of packaging in its total sense starting with early colonial environments.

Human Growth & Dev. 2 112-202

A continuation of course 112-102.

Human Growth & Development 1 112-102

The primary purpose of this course is to introduce the student to the entire life span. It is concerned with the normal and abnormal and encompasses the study of the growth, behaviour, and the development of mental, physical, social and emotional aspects as well as patterns of maturation in the individual.

Human Growth & Development 1 113-101

A study of growth and development during the prenatal, infant and preschool periods. The physical, mental, social and emotional factors will be considered. Special emphasis will be placed on factors that contribute to emotional problems during this developmental process. This course followed by Human Growth and Development 2 in the second semester, dealing with adolescent, youth and adult years.

Human Growth & Development 2 113-201

A study of growth and development during middle childhood and adolescence. The physical, mental, social and emotional factors will be considered. Special emphasis will be placed on factors that contribute to emotional problems during this developmental process. This course is a sequel to Human Growth and Development 1.

Human Growth and Development 123-119

This course studies human growth and behaviour from conception to old age. "Normal" patterns of growth will be studied as a framework for differentiating atypical behaviour and development.

Human Services Seminar 117-109

This course focuses on the development and use of community resource information and referral skills. Students will explore resources and problem-solving strategies needed to identify needs of clients and to locate programs or resources and to refer clients to necessary services in a community.

Human Sexuality 113-610

This course will focus on sexuality from a development point of view, emphasizing both physiological and psychological variables. In addition, several special topics within the area will be stud-

ied (e.g. sexual attitudes). Also, emphasis will be placed on an examination of sexual issues which relate to the role of the child care worker in treatment of programming and implementation. Finally, there will be some emphasis on personal self-exploration of sexual attitudes and feelings as they relate to your work and your general life style.

Illustration 1 **470-109**

Illustration 1 is a continuation of Perspective 1 and 2 where the student learned disciplines in drawing such as perspective, observing and rendering various objects, to a full semester in figure drawing, we now put into practice these skills at a more advanced level as applied to designing for the graphics industry. The role of the student in the illustration 1 course is to fine tune their drawing abilities and composition, for the use of illustration in advertising and promotions. The various mediums and techniques such as line, line and wash, markers, watercolour, and designers colours will be explored.

Illustration 2 **470-209**

In Illustration 2, the student will be further encouraged, through various projects, to develop not only his/her abilities in drawing, rendering and composition, but to apply these abilities to more advertising and editorial related assignments. With more advanced experimentation in the use of pen and ink, magic markers, watercolours and designers colours.

Improvisation & Test Analysis 1 **481-328**

This course will examine the differences and similarities between improvisation and text work for actors in the theatre. It will help tear down the barriers between these two "types" of acting, showing how they can inform and aid each other, and the actor, in a more creative and imaginative process. The aim is to free the actor of preconceptions of both "types", allowing for a more creative approach to text, and a more disciplined approach to improvisation.

Improvisation & Text Analysis 2 **481-429**

The course will continue to explore the difference and similarities between improvisation and text. Using both, a creative approach to text and a more disciplined approach to improve, as tools the course material will eventually focus on the concept of "style". Style being the descriptive nature for various styles of theatre. (Drama is melo-drama comedy is force). The aim is to develop the student capacity to develop the appropriate performance technique for style through improve and text.

Improvisation 1 **481-120**

This course is an exploration of scene improvisation based on the methods of Viola Spolin, Keith Johnstone and others. Students will learn how to create a clear sense of character, relationship, place and situation without benefit of props, costumes or scenery. Also covered will be "playing the moment" with another actor, shorthand methods of characterization, and methods of structuring the improvised scene to create a coherent narrative. The student will learn how to work spontaneously and creatively with another actor, as well as how to draw on, discipline and focus his/her imagination for the theatrical medium.

The format of the class is a series of improvisational games and exercises of gradually increasing difficulty, each of which isolates particular problems of the technique of scene improvisation. By learning to create coherent scenes spontaneously, the student will gain valuable insights into the related fields of acting, writing and directing.

Improvisation 2 **481-229**

Refer to course description of Improvisation 1 (481-120).

In-Office Practice **473-136**

Students are placed in a design office to develop the skills learned in school and acquire a first-hand knowledge on the workings and procedure of a professional environment.

Individual Program Planning **112-219**

This course presents the general standards, guidelines and strategies of individual program planning for developmentally handicapped people.

Industrial Design 1 **472-150**

An introductory course in Industrial Design. Principles of 3-dimensional problem solving are explored through structure models. Aesthetic and mechanical understanding of line, form and space is introduced.

Industrial Design 2 **472-250**

A course in the application of fundamental principles of Industrial Design. Design methodology, resources for designers, and design presentation will be stressed.

The design of a consumer product is undertaken in this course.

Industrial Design 3 **472-350**

An intermediate course in Industrial Design emphasizing the application of skills from other courses in the program. Design methodology and presentation will be stressed.

Products designed are centered around practical use of materials and consumer needs.

Industrial Design 5 **472-550**

A continuation in the series of Industrial Design lab courses to the advanced level. The application of skills and knowledge gained both from other courses in the program, and from research is stressed in an employment-like environment. A work-term in industry or business is involved.

Industrial Design 6 **472-650**

An advanced course in Industrial Design emphasizing the application of skills and knowledge from both supporting courses in the program and from independent student contact with the industry. Design communication will be stressed in an employment-like environment.

Information and Referral Skills **123-121**

This course focuses on the development of interviewing skills for information provision and referrals, and the use of human services as client resources. Students will develop problems-solving skills to identify client needs, to locate resources, and to refer clients to the appropriate services in the community.

Integrative Seminar 1 **113-104**

This seminar provides students with the opportunity to integrate theoretical course material with their own development as individuals and as child care workers, using their field work experience as a focus. Problems and concerns that arise in the students' field placements will be discussed. The students will also be helped to develop a concept of child care work and methods to deal with children in a variety of child care work settings.

Interior Basics **473-104**

Introduction to contemporary architecture as human anatomy sizes, furniture sizes, shapes and practical application; character and mood of shapes; textures; lighting (natural and artificial) planning and zoning for human needs.

Interior Design **473-100**

The application of the elements and principles of two and three-dimensional design in visual problem solving. This course takes the form of a studio/lab when students are given a design problem which must be solved in a visual context.

Interior Design 2 **473-200**

This is an introductory lecture/studio course in which students are expected to synthesize first semester skills; apply these skills in a practical way in solving simple interior design problems, and visually present the solutions for evalution. The 8 hours per week of supervised classroom time includes lectures, when information relevant to the current project is given; supervised field trip(s) where applicable; and tutorial or crit-time with each of the design instructors every week, when a critical analysis of the individual's work in progress takes place. The time available for each student on a one to one basis is limited by the classroom hours available and the number of students in each class. Full time instructors may be available on an appointment basis for extra crit-time but this is not to be used in lieu of attending regular classes.

The course is team taught; that is more than one instructor will teach the same course to the same group. For example; out of 8 hours per week of instruction, the student may have 4 hours with instructor "X" and 4 hours with instructor "Y". Students thus have the opportunity of receiving more than one opinion of their work.

Interior Design 3 **473-300**

Continuation of Interior Design 2 involving more complex design and planning skills. Projects will be introduced by a lecture pertaining to the subject and the methodology for solving the problem. Analysis research and verbal presentation will be an integral part of the solution. The assigned design problems are simulated projects dealt with by the Interior Design professional. Students are expected to have a critique of the preliminary solution on a weekly basis with each of the design instructors.

Interior Design 4 473-400

A lecture/studio course in which students are assigned design problems simulating projects dealt with by the Interior Design professional. The level of complexity will escalate as the student acquires more skills. The 10 hours per week of supervised classroom time includes lecture time by instructors or guests when information relevant to the current project is given; supervised relevant field trips; and tutorial or crit-time. It is of paramount importance that each student spend crit-time with each of the design instructors every week when a critical analysis of the individual's work in progress takes place. The time available for each student on a one to one basis is limited by the classroom hours available and the number of students in each class. Full-time instructors are available on an appointment basis for extra crit-time but this is not to be used in lieu of attending regular classes. The course is team taught; that is more than one instructor will teach the same course to the same group. For example, you may have 6 hours with instructor "X" and 4 hours with instructor "Y" per week. Students thus have the opportunity of receiving more than one instructor's opinion of their work.

Interior Design 6 473-601

Further projects as described in Drafting & Detailing 5. January - February: research, analysis and preliminary planning for final project; February: mandatory internship of in-office experience - 8 weeks credit; March - April: final planning and compiling of major final project; April: verbal presentation to faculty and external assessors.

Interior Plantscape Option 152-305

This course is designed to familiarize the student with the rapidly expanding interior landscape field. The course will cover design, installation and maintenance aspects of interior landscaping using practical lab and lecture formats.

Internship 477-600

Either the coordinator, or the student will make arrangements with a radio station, or an associated industry such as a production house, or an advertising agency, for the student to spend no less than 30 hours per week "on the job". The student may, or may not receive financial reward for services rendered. The internship is a learning experience and is considered to be one of the most important phases of the learning. The employer is under "no" obligation whatsoever to pay the interning student.

Note: A student with any incomplete courses will not be allowed to take an internship. The reason for this is because the student has little or no opportunity to make up missed courses when the internship begins, and this would result in a failure to graduate from the program.

Interpersonal Skills 117-113

Interpersonal skills was designed to introduce human services students to the communication process which characterizes our field. Effective written and spoken communication determine your efficiency and effectiveness as a worker. Communication skills also influence your client's sense of satisfaction with the counselling or service experience. Our course will focus on the factors which influence the ways in which people send and receive verbal and nonverbal messages; which determine assertiveness, shyness, and effectiveness in communication; and, which constitute the skills of a balanced self-determined person.

Interpersonal Skills 123-122

Interpersonal skills is designed to introduce human service students to the communication process which characterizes the field. Effective spoken communication determines your efficiency and effectiveness as a worker. Communication skills also influence your client's sense of satisfaction with the counselling or service experience. The course will focus on the factors which influence the ways in which people send and receive verbal and nonverbal messages; which determine assertiveness, shyness, and effectiveness in communication.

Interpretive Planning 151-103

In this course the students will be taught the principles of planning and to apply them to preparing promotional material and interpretive programs of different organizations. The students will also be taught various interpretive styles and how to judge their suitability to particular situations.

Interpretive Techniques 151-102

Understanding the individual behaviour and group influences on behaviour is especially important for the interpretive personnel. Effective interpretation requires a working knowledge of the clientelle to whom the messages are directed so that appropriate means can be used to arouse interest and transmit information. This course is designed to prepare students to deal with a variety of clientelle by understanding group dynamics, basic teaching principles and possible unique groups.

Interviewing & Counselling Skills 1 123-226

A study of the structure and process of helping clients resolve their problems.

Interviewing & Counselling 2 122-316

A study of selected theories and models of counselling and the skills appropriate in specific human service programs and special needs populations.

Intro to Computer Aided Design 1 473-404

This introductory course includes an overview of computer technology and applications plus a basic working knowledge of a microcomputer based 2-dimensional computer aided drafting system.

Intro to Mental Retardation 1 112-105

This course will undertake a thorough examination of: the historical development of the field of mental retardation; causes of mental retardation; characteristics of known syndromes; psychological problems associated with the condition; preventive measures and socio-cultural factors giving rise to pseudo-retardation.

Intro to Mental Retardation 2 112-207

A continuation of course 112-105.

Intro to T.V. Production 478-132

Information about the basic operating and production techniques for televison and the multiple camera facility of the basic television studio is introduced during this course. At the same time students learn how to research, develop, crew and direct simple televison productions.

Intro. to Advertising 476-105

This course is designed to explain the function of advertising in PR planning and execution. It will cover the history of advertising, rise of the various media, rise of the advertising agency. It will outline the advantages and disadvantages of the various media from the point of view of delivering a PR message.

Intro. to Computer Design 471-505

This introductor course consists of an overview of computer technology, computer aided design applications and the fundamental operations of a computer aided drafting system.

Intro. to Radio 477-101

The objective is to give the student a complete understanding of the history, the role, the organization, the legal aspects, music content and news and sports policies of radio stations in Canada. The course will also present the differences between private and public broadcasting in the nation.

Introduction to Computer Grapica and 2-Dimenaional Computer Aided Design 472-402

This introductory course includes an overview of computer technology and applications plus a basic working knowledge of a microcomputer based 2-dimensional computer aided drafting system.

Introduction to Florist Industry 153-110

This course will study the Retail Florist and the Retail Flower Shop in the areas of purchasing, marketing and service offered to the consumer including structure of wire services, wholesale suppliers, delivery, types of retail outlets and industry trends.

Introduction to Law 124-102

This course will familiarize the student with our legal system as a whole. The course will focus on the definition of law, its elements and role in a democratic society, the form of our government, the history of English Law, The Constitution Act, the elaboration of Federal and Provincial Legislation, the concept of civil liberties, and the fundamentals of natural justice.

Introduction to Professional Skills 113-112

This course is an introduction to basic professional and personal skills that the Child Care Work student will build on in the future in both field and classroom.

Introduction to PR & Case Studies 476-101

This course will deal with its subjects on an elementary level and lay the foundation for the

courses to follow. It will examine the history and trends, principles and practice of the art and craft of Public Relations; definitions concepts - relation to publicity, advertising; tools of PR. It will illustrate these subjects with case histories.

Introduction to Radio 476-131

This course is to familiarize PR students with radio and how they can use it in their profession. They will study its history, tools and techniques, style of writing and understand production requirements.

Introductory Methods (R.W.) 117-108

This course introduces students to adult developmental theory with a systems approach to individual, family, and career development issues. Students will also explore the impact of sex disability and ethnicity on these developmental phenomena. These knowledge objectives will be integrated with skill objectives as students engage in anecdotal recording, case studies, and research paper which includes review of a developmental stage with interviews of age/stage appropriate representatives.

Job Search Skills 123-432

This course is designed to provide a practical step-by-step guide to preparing and carrying out a thorough job search in the community services field.

Labour Reporting/Journalism and the Law 475-181

Designed for graduating students, this course is an intensive practical study of labour reporting and of criminal and civil law as it pertains directly to journalism. The term is divided equally in order to devote a half semester to each subject.

Landscape Design & Presentation 1 152-517

This course is a further study of landscape design principles with onus on awareness of space, graphic techniques and presentation skills. Accent is placed on the selection of the best possible solution to a design problem and the presentation of that solution to the client. The exploration of a variety of presentation techniques and media is mandatory.

Landscape Drawing 1 152-136

The course will develop the students ability in graphic communication skills, particularly as used in the landscape industry.

Landscape Materials & Techniques 152-236

This course is designed to familiarize the student with the hard construction materials used in the landscape industry. It is expected that the student will be able to use these materials in small design projects geared to specific construction problems. The drawing of detailed construction plans and elevations will assist the student to be able to read blueprints but also to understand how a project can be assembled.

Landscape Option 152-307

This will be a lab oriented course in which the students will work with typical landscape materials, tools and equipment using acceptable landscape practices and techniques, while interpreting landscape plans and specifications.

Layout & Production for Print 1 476-104

This course is designed to give the student a basic knowledge of print production, design and layout.

Layout & Production for Print 2 476-204

This course will study and practise the skills required by a public relations practitioner involved in the publishing of corporate internal and external publications and working with other print media.

Layout & Production for Print 3 476-304

This course is designed to review the principle basics of layout and design covered inthe two previous courses and extend the student's knowledge of print production, design and layout through practice.

Lead Sheet Arranging 3 137-319

This course will provide the student with the opportunity to learn how to construct piano/vocal lead sheets from a variety of sources. Construction of lead sheets for transposing instruments will also be covered. (eg. Bflat and Eflat instruments.)

This course would be beneficial to the students needing information on how to organize and present, musically and logically, basic arrangements for small rhythm section or small combo. This course is not designed to be as comprehensive or as involved as the regular Arranging 3 program where students are concentrating mainly on Writing Courses.

Vocalists may find this course particularly enlightening.

Legislation in Human Services 123-429

Legislation is having an increasing impact on the delivery of human services. To provide clients with appropriateservice, the worker must be familiar with the relevant pieces of legislation in the areas such as: Family Law, Community Law, Human Rights Legislation. This course will provide the student with the knowledge necessary to work within the parameters of such legislation.

Life Span Development 151-101

An important skill for an interpreter is the ability to communicate effectively with an audience. In different situations the age level, and consequently the comprehension level, will change. In the Life Span development course you will examine the stages of human growth and development from infancy to old age. By providing an understanding of life's stages it is expected that the interpreter will be better able to communicate interpretive material to various age levels.

Lifespan Development 117-110

This course studies human growth and behaviour from conception to late adolescence. "Normal" patterns of growth will be studied as a framework for differentiating a typical behaviour and development. Special emphasis will be placed on the developmental theories of Piaget and Erikson.

Lighting Applications 479-125

This course is an introduction to the professional lighting techniques, which can be applied in film and video production and still photography. Theory of light readings, work with colour and the creative aspects of light are integrated with hands-on experience and practical use of lights in production situations.

Lighting Design 1 481-319

An in-depth analysis of the lighting designers' role from the initial concept of a production through to the finished product. The importance of organized paper work will be stressed, such as instrument schedules, dimmer schedules, magic sheets, colour lists, and drafting techniques.

Lighting Design 2 481-419

Refer to course description of Lighting Design 1 (481-319).

Lighting Design 3 481-519

Emphasis will be placed on the practical aspect of lighting design. Students will design lighting plots which will be hung and focused in the Theatre. Students will design 2 major plots on paper to be presented in class and further emphasis will be placed on the paper work aspect of lighting design. Touring will be studied as well as lighting for thrust stages and theatre in the round.

Lighting Technology 1 481-119

An introduction to the tools of stage lighting. The course will cover light, electricity, basic principles of instrumentation, and application to stage lighting.

Lighting Technology 2 481-219

Refer to course description of Lighting Technology 1 (481-119).

Lighting 1 473-113

Students will be provided with a simple technical background in lighting, its psychological and physiological effects on people and their environment.

Lighting 3 480-313

Through lectures, demonstrations and practice of various lighting techniques to produce special effects, students will learn advanced electronic flash techniques using studio flash units and accessories.

Logo 1 475-180

This is a concentrated magazine laboratory which requires students to be responsible for the publication of Magazine World, and for The Humber Reporter alumni newsletter.

Logo 2 475-280

This is a level two magazine laboratory which requires students to be responsible for the publication of Magazine World.

Magazine Layout & Design 475-108

This course is designed to enable students to understand the essentials of magazine design through the interaction of type and illustration. It will deal with both glossy and newsprint magazines.

Magazine Writing 1 475-138

This course will concentrate on the skills required for writing for consumer, business, professional, corporate, and government publications.

Magazine Writing 2 475-238
This course deals with the skills required for writing and editing for consumer, business, professional, corporate and government publications. It includes an examination of the freelance writing magazine market and covers such freelance writing activities as researching, developing and selling story ideas, time management.

Major Instrument (Voice) 2 137-298
Refer to Major Instrument 137-198 course desciption.

Major Instrument (Voice) 3 137-398
Refer to Major Instrument 137-198 course description.

Major Instrument (Voice) 5 137-598
Refer to Major Instrument 137-198 course description.

Major Instrument (Voice) 6 137-698
Refer to Major Instrument 137-198 course description.

Major Instrument - Guitar 137-592
Refer to Major Instrument 137-198 course description.

Major Instrument - Guitar 137-692
Refer to Major Instrument 137-198 course description.

Major Instrument - Guitar 137-392
Refer to Major Instrument 137-198 course description.

Major Instrument - Guitar 137-492
Refer to Major Instrument 137-198 course description.

Major Instrument - Guitar 137-292
Refer to Major Instrument 137-198 course description.

Major Instrument - Keyboard 137-693
Refer to Major Instrument 137-198 course description.

Major Instrument - Keyboard 137-193
Refer to Major Instrument 137-198 course description.

Major Instrument - Keyboard 137-293
Refer to Major Instrument 137-198 course description.

Major Instrument - Keyboard 137-393
Refer to Major Instrument 137-198 course description.

Major Instrument - Keyboard 137-593
Refer to Major Instrument 137-198 course description.

Major Instrument - Keyboard 137-493
Refer to Major Instrument 137-198 course description.

Major Instrument - Percussion 137-294
Refer to Major Instrument 137-198 course description.

Major Instrument - Percussion 137-594
Refer to Major Instrument 137-198 course description.

Major Instrument - Percussion 137-494
Refer to Major Instrument 137-198 course description.

Major Instrument - Percussion 137-194
Refer to Major Instrument 137-198 course description.

Major Instrument - Percussion 137-694
Refer to Major Instrument 137-198 course description.

Major Instrument - Percussion 137-394
Refer to Major Instrument 137-198 course description.

Major Instrument - Trombone 137-395
Refer to Major Instrument 137-198 course description.

Major Instrument - Trombone 137-595
Refer to Major Instrument 137-198 course description.

Major Instrument - Trombone 137-695
Refer to Major Instrument 137-198 course description.

Major Instrument - Trombone 137-195
Refer to Major Instrument 137-198 course description.

Major Instrument - Trombone 137-495
Refer to Major Instrument 137-198 course description.

Major Instrument - Trombone 137-295
Refer to Major Instrument 137-198 course description.

Major Instrument - Trumpet 137-496
Refer to Major Instrument 137-198 course description.

Major Instrument - Trumpet 137-196
Refer to Major Instrument 137-198 course description.

Major Instrument - Trumpet 137-596
Refer to Major Instrument 137-198 course description.

Major Instrument - Trumpet 137-396
Refer to Major Instrument 137-198 course description.

Major Instrument - Trumpet 137-296
Refer to Major Instrument 137-198 course description.

Major Instrument - Trumpet 137-696
Refer to Major Instrument 137-198 course description.

Major Instrument - Woodwind 137-399
Refer to Major Instrument 137-198 course description.

Major Instrument - Woodwind 137-299
Refer to Major Instrument 137-198 course description.

Major Instrument - Woodwind 137-499
Refer to Major Instrument 137-198 course description.

Major Instrument - Woodwind 137-699
Refer to Major Instrument 137-198 course description.

Major Instrument - Woodwind 137-199
Refer to Major Instrument 137-198 course description.

Major Instrument - Woodwind 137-599
Refer to Major Instrument 137-198 course description.

Major Instrument - Woodwind Performance 5 137-589
Refer to Major Instrument 137-198 course description.

Major Instrument - Woodwind Performance 6 137-689
Refer to Major Instrument 137-198 course description.

Major Instrument Performance - Keyboard 6 137-683
Refer to Major Instrument 137-198 course description.

Major Instrument Performance - Keyboard 6 137-583
Refer to Major Instrument 137-198 course description.

Major Instrument Performance - Percussion 5 137-584
Refer to Major Instrument 137-198 course description.

Major Instrument Performance - Percussion 6 137-684
Refer to Major Instrument 137-198 course description.

Major Instrument Workshop 1 137-101
This is a two-semester course in which topics of common interest will be examined through lectures, demonstration, listening and student performance. It is meant to be a supplement to the private lesson, dealing with problems which all students tend to share.

Major Instrument Workshop 2 137-201
Refer to Major Instrument Workshop 137-101 course description.

Major Instrument 1 137-198
Major Instrument 1-6 is a series of 1/2 hour private lessons and/or master classes designed on a personal basis for each student, according to his or her individual needs. Emphasis will be placed on warmup routines, technical development, practice procedures and strategies, musicality of performance and performance techniques.

Major Instrument 1 - Bass 137-190
Refer to Major Instrument Workshop 137-101 course description.

Major Instrument 2 - Bass 137-290
Refer to Major Instrument Workshop 137-101 course description.

Major Instrument 3 - Bass 137-390
Refer to Major Instrument Workshop 137-101 course description.

Major Instrument 4 - Bass 137-490
Refer to Major Instrument Workshop 137-101 course description.

Major Instrument 5 - Baas 137-590
Refer to Major Instrument Workshop 137-101 course description.

Major Instrument 6 - Bass **137-690**

Refer to Major Instrument Workshop 137-101 course description.

Management **151-306**

This course is designed to familiarize the student with some management practices as seen in interpretive centres or organizations. An overview of money management will be followed by discussions and exercises dealing with grant proposals, volunteer programs, supervising skills, public relations, promotion of programs, marketing and evaluation of programs.

Marketing Design Objective 1 **471-130**

The student in the package design program must be made aware of the fact that, in a majority of successful firms today, the final decision as to the packaging of their products rest with the director or manager of marketing. Vital contributions may be made by production, finance, materials handling, advertising and other experts...but management expects the marketing group to settle on the specific box, bag, jar or can that meets its objectives. For it's marketing (and only marketing) that produces revenue for a company. Hence, this course will introduce the student to the marketing concept and the marketing mix functions. It will give the student an understanding of marketing principles and objectives and show how each of them influences package design.

Marketing Design Objectives 2 **471-230**

This course applies principles of marketing, learned in Marketing Design Objectives 1, directly to design or redesign of consumer goods packaging.

Materials & Processes 1 **472-351**

An intensive course in materials & processes for Industrial Design. The study of physical properties of materials and processes by which they are formed will include practical exercises in forming and joining metals. There will be field trips to a variety of industrial fabricators to reinforce individual course topics.

Materials & Processes 2 **472-451**

A continuation of Materials & Processes 1 with emphasis on Plastics & Composites Technologies and applications. There will be field trips to a variety of fabricators of Industrial Design products and components.

Materials & Testing 2 **471-402**

Using the theories discovered through Materials & Testing 1 and the knowledge of machinery learned in Packaging Machinery 1, students will begin to apply these theories to actual materials used for projects such as those of 3-Dimensional Design 1 and 2.

Materials and Testing 1 **471-302**

This course introduces students to the elementary tests and experiments a designer must become involved with to fully familiarize himself or herself with the materials available for packaging different products.

Materials 1 **473-111**

Encyclopedia of finishing materials and their method of application.

Materials 2 **473-211**

Encyclopedia of methods and materials of construction. Lectures on origins; history and current practice of building methods and materials. Lecutres are illustrated with slides and samples of materials. A field trip to a construction site or organized

Materials 3 **473-311**

Encyclopedia of construction methods and materials.

Math for Arborists **164-404**

This Urban Tree course will familiarize students with many of the calculations that will be used in the field, including: mechanical advantage, tree height, cross-sectional square inch value, weight of green wood, mixing calculations for pesticides, sprayer calibration, scaling timber and calculating fertilizer requirements.

Mechanical Systems **473-114**

The course will provide basic examination of mechanical design theories. The relation between the designer and the mechanical engineer will be discussed.

Mechanicals 1 **470-130**

This course is an extension of Studio Methods 2 and designed to provide the student with the technical skills required to prepare professional camera-ready art. Emphasis will be upon the varied print media and will encompass line, line and screens, two colour line, halftone and four colour process, requiring keyline and acetate overlay separations for newspaper, magazine, gravure or screen processes.

Design projects are introduced to explore the different media from the start to the camera ready stage.

Mechanicals 2 **470-230**

Refer to course description of Mechanicals 1 (470-130).

Media & Society **475-183**

This course offers a broad introductory study of print and broadcast media in Canada, including daily and community newspapers, magazines and news services, radio and television stations and new forms of communication. An overview of the philosophy and practices of journalism is provided. The concept of freedom of expression is stressed and the ethics and social responsibilities of the media are examined. The course is designed as a backdrop for other studies in the Journalism Program.

Medication: Use and Abuse **117-406**

This course is designed to introduce the student to basic concepts of pharmacology such as the processing of drugs by the body, the actions, uses and major side effects of a select number of drug categories. Other areas to be discussed include drug regulations, the appropriate storage and administration of medications as well as the abuse potential of certain medications.

Merchandising **473-134**

An introduction to retail marketing and merchandising processes and their relationship to retail store planning and design.

Mime **481-430**

The first six weeks build on work initiated in the 2nd year program. Including naturality, mime technique, and characterization. The final six weeks deal with the actor's "presence" on stage using the medium of mask & clown. There are 3 presentations required: 1) a technical "floor exercises" routine choreographed to music; 2) a solo piece based on a theme provided by the instructor; and 3) a group piece.

Modelling and Choreography Techniques 1 **133-506**

Students will be trained in runway and fashion show techniques employed by fashion models for various categories of garment showings including formal modelling, runway productions, showroom and television modelling. Video taping of practice sessions will occur periodically throughout the year.

Modelling and Choreography Techniques 2 **133-60**

Refer to course description of Modelling and Choreography Techniques 1 (133-506).

Modelling For Fashion Photography 1 **133-507**

Students will be taught to work on still-camera sets as a photographic model. Instruction includes photographic categories such as sportswear, dresses, beach wear, formal wear, fashion accessories and magazine covers.

Students will be shown how to coordinate hairstyles, make-up and accessories to complement the garment being photographed. European, Canadian and U.S. fashion photographers' style will be studied.

Modelling For Fashion Photography 2 **133-607**

Refer to course description of Modelling For Fashion Photography 2 (133-507).

Modelmaking 1 **472-15**

A model making course for the Industrial Designer using power tools, and woodworking machinery to form a variety of materials. Emphasis upon craftsmanship is incorporated in a range of model making activities.

Movement 1 **481-107**

Movement 1 introduces performance students to the concepts of Laban Movement Analysis (LMA). Because the actor expresses him/herself not only with the voice but also with the body, an understanding of movement is valuable in the searchfor reaching full potential. LMA is a language for movement that helps identify and control qualities of action.

Four areas of movement with which LMA is concerned and which students will explore are: 1) the use of the body and the relationship of body parts; 2) "effort"--the attitude or motivation for movement; 3) the spatial orientation of the body and 4) the shapes the body makes in space. This first semester of movement emphasizes students' application of LMA to themselves: what are their own preferences, strengths and limitations as individuals.

Movement 2 **481-207**

A continuation of the work begun in Movement 1, Movement 2 looks at movement from the perspective of Rudolf Laban and the application of Laban Movement Analysis to theatre work. This semester students will continue the process of getting to know themselves and others in a movement context. Some beginning focus on characterization will be included.

Movement 3 **481-326**

Movement 3 is designed to continue the study of Laban Movement Analysis (LMA) started in Movement 1 and 2. After a review of basic LMA (effort, space, shape and body fundamentals) and a reacquaintance with individual preferences, study will focus on the use of movement in characterization and in scenes. To this end students will bring in work with which they are involved in other classes so that they can explore the possibilities of a particular role from a movement perspective. As well, situations from daily life will be examined and experimented with in order to achieve maximum efficiency in action.

Movement 4 **481-426**

Movement 4 continues the study of Laban Movement Analysis (LMA) started in Movement 1, 2 and 3. Study will continue to focus on the use of movement in characterization, with an emphasis on individual work. Some work with couples and groups will be introduced and will include observation of movement synchronicity between people. Ongoing body work is a fundamental aspect of the course.

Movement 5 **481-518**

This course is designed to facilitate creativity through an in-depth study of the body in motion, in solo work and within groups. Personal expressive styles will be encouraged and explored through stretching, bodywork, character work, improvisation and video-feedback. Movement observation and analysis will be an integral part of the course.

Multi-handicapped Module **112-406**

This course will give practical experience in care, handling and programming for multi-handicapped people.

Municipal Parks Operations **152-521**

A study of parks in Canada with specific reference to municipal parks and municipal systems. Emphasis will be placed on the problems and solutions of day to day operations in a municipal system. Provincial, Federal and Regional parks systems will also be discussed.

National Radio Sales 1 **477-404**

This course will introduce the student to the world of national time sales. National presentations, the role of radio representatives, commissions and all basic aspects of time buying on a national basis will be discussed.

Nature of Crime 1 **124-101**

Although a "Typology of Crime" has not gained unanimous support, such a study will definitely assist the student to develop a better understanding of the various forms of criminal behaviour in society.

Special attention is given to social institutions that play significant roles in the increase or decrease of the crime problem as it exists in Canada and other cultures. In dealing with the individual offenders, the course will emphasize environmental and personality factors that influence criminal behaviour, and trace such behaviour over time.

Nature of Crime 2 **124-201**

This course is a continuation of Nature of Crime 1 and will, for approximately 5 weeks, concentrate on the typology of crime studies. In the weeks following, the major focus in this course will be given to the nature of crime and conflict. Factors discussed will include which "wrongs" should be considered "crimes"; the violence of conditions justifying the violence of persons, and other contemporary moral issues.

Nature Interpretation Resources 1 **151-104**

This course is designed to be a balance between practical and theoretical aspects of interpretive resources. In-class discussion will cover information sources, helpful organizations and clubs, as well as awareness, cooperative, and simulation games. Students will also be exposed to a wide range of equipment, tools, and props available for field use in the more prominent interpretive subjects. Advantages, and disadvantages of equipment will be evaluated and discussed. Hands-on use of equipment will familiarize participants with the interpretive tools.

Resources for interpreting winter, weather, geography, creeks, ponds, birds and wildflowers will be covered in this course.

Nature Interpretation Resources 2 **151-304**

This course is designed to be a balance between practical and theoretical aspects of interpretive resources. In-class discussion will cover information sources, helpful organizations and clubs, as well as awareness, cooperative, and simulation games. Students will also be exposed to a wide range of equipment, tools, and props available for field use in the more prominent interpretive subjects. Advantages and disadvantages of equipment will be evaluated and discussed. Hands-on use of equipment will familiarize participants with the interpretive tools.

Resources for interpreting insects, forests, plants, soil, pollution, and mammals will be covered in this course.

News Photography **475-301**

This course will enable students to develop the skills to produce and to select news photographs for publication.

Newspaper Layout & Design **475-104**

This course is designed to enable students to understand the essentials of newspaper design through the interaction of type and illustrations. It will deal with the layout of news and feature pages in tabloid and broadsheet newspapers.

Newspaper Reporting 1 **475-201**

This is the second in a series of basic writing courses designed to develop reporting and writing skills needed in all areas of print journalism. Emphasis is placed on interviewing techniques--gathering information for news stories, feature articles, etc., both in person and by telephone.

Newspaper Reporting 2 **475-304**

This course constitutes a practical laboratory for the production of news copy, sports, features, columns and views for the student newspaper, "Coven". Students produce at least one story a week from assigned beats, working to deadline with instructor's guidance. Students file final rewrite on VDTs.

Newspaper Reporting 3 **475-400**

Refer to course description of Newspaper Reporting 2 (475-304).

Newsroom Management **475-509**

This course will introduce students to the variety of problems and tasks faced by broadcast news management teams. There will be lectures, classroom discussions, guest speakers and off-campus assignments.

Operating and Engineering 1 **477-131**

This course is designed to provide practical and theoretical knowledge of basic radio broadcast systems. The student will also learn how to properly operate broadcast equipment.

Operating and Engineering 2 **477-231**

This course is designed to introduce the student to the essential engineering concepts of a variety of audio broadcast systems and equipment, including high technology digital audio.

Orchestration 5 **137-511**

In this course audio and visual aids are used to provide the basis for an analysis of musical scores. Students are encouraged to examine scores, tapes and records in order to increase their sensitivity to orchestral colours and the numerous styles that have been adopted by various composers and arrangers.

Orchestration 6 **137-611**

Refer to 137-511.

Orientation to Human Services **123-120**

This course is designed to orient the student to the field of the human services. The course will examine the historical development of the human services in Canada and Ontario and the underlying philosophies and social conditions which generated their development. The course will also provide the student with a basic understanding of current organization, structure and functioning of the human services in Ontario. Finally through in-class projects and assignments, the student will be provided with the opportunity to develop the necessary sensitivity and value orientation required for human service work.

P.R. Research **476-139**

This course will provide the fundamentals of research theory

and practice as used for PR purposes.

Package Design Option 471-503

This course makes students aware of picking the right materials, colour, and printing method for their designs. The course also continues to offer insight into the regular methods used by professional designers in meeting the demands of the clients.

Packaging Drawing 1 476-107

Drawing 1 is a highly practical course in which instructors will attempt to deal with the theories as quickly as possible. By drawing, the student will then have the opportunity to demonstrate his or her understanding of these theories. The course will demand a high proportion of work done in the student's own time and sketch books will be required for submission on a continuous basis.

Packaging For The Future 471-533

Students will be required to visit packaging plants, supermarkets, corner stores, etc. An analysis of present packaging and buying habits of consumers. Then produce a package either of food products or household products, that will replace existing way of packaging. Plus a written report, mock-up, and suitable finished art.

471-303 3-D Design 2

Packaging Graphics 1 471-101

This course introduces the student to client-oriented design. Packaging Graphics has constant tie-in projects in other Packaging Design courses.

Packaging Graphics 2 471-201

Using design tenets previously discovered in first semester courses, students apply these theories, together with other in more advanced techniques, to projects relating to the design and marketing of packaged products.

Studio Method Typography

Packaging Machinery 1 471-305

Packaging Machinery 1 is designed to provide all Package Design and Development students with a better understanding of the technological demands, placed upon the designer, of high-speed machinery and the great variety of special packaging materials at the designer's disposal.

Packaging Machinery 2 471-405

Packaging Machinery and the requirements of such equipment will be examined in relation to projects in 3-Dimensional Design 2; to design requirements for Resource Management 1; for technical design limitations connected with Materials and Testing 2 and printing limitations related to Printing Processes 2.

Packaging Research 2 471-232

Direct contact with packaging manufacturers and users, in this research, provide students with an opportunity to meet with future clients and employers, and to research different packaging materials used in the industry.

Packaging Research 3 471-301

Students will research printing methods directly associated with package reproduction.

Packaging Research 4 471-401

Students will research quality control methods at various packaging plants in the Toronto area.

Packaging Research 5 471-501

Students will research artwork, type, photography, colour separations plate costs and cost of printing their package designs. Students will visit various packaging and printing plants.

Packaging Research 6 471-601

Working with Co-op semester employers, students will assess their strengths and weaknesses in their Co-op and see if that is the area of packaging they are best suited for.

Packaging Studio Methods 1 476-106

This course will cover the basics of photography and how to use as a communications tool.

Packaging Studio Methods 2 471-206

This course presents an introduction to some of the demands in finished artwork for high-speed reproduction. The course also continues to offer insight into the regular methods used by professional designers in meeting the often urgent needs of clients.

Packaging Technology 1 471-131

This is a basic mathematics course with the emphasis placed on visual geometry and volumetric comparisons, application of mathematics to area, volume and weight problems in packaging. The student will also learn how to use a perfect calculator to solve most mathematics problems.

Packaging Technology 2 471-231

An introduction to basic drafting and its relationship to the simpler mechanical components and principles encountered in packaging machinery.

Packaging Typography 1 471-105

The course demonstrates that communication by the printed work must of necessity, be an art form in itself. The better the design, the greater the legibility, then the more possibility of a desire on the part of the viewer to read, comprehend and retain the message. In addition, however, there is a basic mechanical knowledge necessary before students can actually design with type so emphasis is placed on these technical areas. Hand lettering for both layout reproduction also plays an important part in this course, leading the student to an ability to identify, indicate and specify type in the classic faces.

Packaging Typography 2 471-205

Further typographic design, with special reference to the demands of packaging graphics, type mark-up, special photographic distortion techniques and the identification of specific type styles.

Packaging 1 470-302

This course covers the basic three dimensional design skills the graphic designer would use in the design of packaging. Lettering, design, colour, folding and presentation as applied to the package.

Perceptions and Colour 471-112

With students, the instructor will explore both colour aspects and their relationship to the specific areas of study in the student's own program of study. The course objectives are to examine colour and its effect on the senses and to expand students' awareness of the conscious and subconscious effects of colour.

Perspective & Rendering 1 473-102

Emphasis will be placed on pen ink, pencil, water colour and full colour rendering for good project presentation. In conjunction with the above, the following aspects will be reviewed: two-point and one-point perspectives, shade and shadow in plan and elevations, shade and shadow in perspective and reflections in perspective.

Perspective & Rendering 2 473-301

To explore and further study the techniques of presentation. Emphasis will be placed on related approaches, i.e., pencil, pen and ink (line), wash, water colour. Further practice in freehand drawing, perspective and colour. 3-d perspective.

Perspective & Rendering 3 473-302

A continuation of Perspective and Rendering 2 with emphasis on improving basic watercolour techniques. Expanding knowledge of more advanced perspective methods will also be stressed. The sketch methods and media will be covered extensively. Alternative medias may

Perspective & Rendering 4 473-402

With the introduction of perspective charts and felt markers, the student will be encouraged to increase their efficiency and speed while maintaining a high level of accuracy. After technical skills are well established, short duration, in class, projects will be covered.

Perspective and Rendering 5 473-502

A complete review of basic medias: pencil, pen and ink, ink and wash, felt pen, incorporated in suitable projects. Emphasis will also be placed on perfecting finished renderings in water colour and portfolion presentation. Some of the above subjects may be incorporated with Interior Design 6.

Perspective 1 470-102

The study of one point, two point, three point perspective study of light and shade to depict objects with dimension. Rendering drapery, bottles, china, foil and paper objects in watercolour, markers, pencil and ink. Demonstrations of the media and techniques used in layout and design applications.

Perspective 2 470-202

Introducing the studies of anatomy and the drawing of the human form. The art of placing the human form in perspective in any environment. How the individual figure effects the clothing worn by it. An introduction to the mannequin figure as a basic structure used to indicate the figure in illustration and design.

Perspective 3 470-402
This course is meant to further your basic drawing skills. Drawing from this class will be used as material in some of your illustration projects.

Persuasion & Promotion 476-140
This course will examine the means of systematically influencing groups and individuals through persuasive communication.

Pest Licensing/Entomology 164-406
This Urban Tree course is intended to prepare students to write the Ministry of the Environment exam for class 1 & 3 Land Exterminations licenses, and in addition to examine the subject of pests on landscape plants, particularly insects, and with reference to life cycle, range of damage and control of techniques.

Philosophy of Law Enforcement 1 124-104
This course is designed to thoroughly familiarize the student with working conditions and prejudices to be encountered in his chosen field of law enforcement and security.

Philosophy of Law Enforcement 2 124-305
In this course, law enforcement will be reviewed and analyzed as a sociological phenomena. Basic sociological concepts (ed.g. alienation, status, role norms, values, etc.) will be used as tools to gain an understanding of a variety of topics (e.g. attitudinal structures at the societal level, problems related to selective enforcement). We will also discuss the emotional/psychological hazards of police work, such as stress and its manifestations (i.e. alcohol abuse, suicide, marital problems).

Photography - Graphics 1 480-134
This course shows the close relationship of photography to graphic arts (printing) and graphic design (commercial artists). Lectures will introduce the types of reproduction techniques and operations and their inherent problems. This background on reproduction processes will enable the student/photographer to anticipate the requirements of the artist and the printer/engraver.

Photography - Marketing/Business Management 2 241-008
This course is designed to introduce the student to basic business systems and marketing, as practised by smallbusiness managers. The course will assist students in their efforts to establish their own photography business and or to bring a business and marketing orientation to their future employers in creative photography.

Photography and AV for P.R. Practitioners 476-103
This course will cover the basics of photography and its use in communications particularly in the Public Relations Industry.

Photography for Graphics 1 470-106
Basic Photography for Grapics is designed to take a student who has had no previous experience in photography through the process, so that at the end of the semester he will be able to make a photographic record of the images around him. It is intended that the student will be familiarized with the theoretical and practical aspects of the camera, the workroom and the darkroom, so that he/she will be able to apply his training in the direction of the major program.

Photography for Graphics 2 470-206
On successful completion of the Photography for Graphics 1 course, the second semester will further explore the discipline of photography as it applies to the major program. The medium of colour will be introduced and will be the major vehicle used for the final project at the end of the semester.

Photography Applied 1 480-120
This course is an introduction to the practical application of photography with hands-on assignments and projects. The knowledge attained in concurrent courses, such as darkroom, studio, theory and design will be applied to practical projects and assignments with instructors' supervision.

Photography Applied 2 480-220
A continuation of Applied 1. This course enters into the practical application studio and location assignments. Upon completion of this course, the student will be able to use more advanced approaches for the solution to photographic assignments as well as know to apply a 120 or 4 x 5 camera for advanced studio work. The student employs all of the above to organize, to set up, to prepare and deliver the finished photo in a professional manner.

Photography Applied 3 480-320
This course will integrate with Lighting 3 for instructions and demonstrations. A practical experience in the production of assignments in an efficient and creative manner. Various facets of the industry will be discussed and suitable projects given. Time will be allotted for a "workweek". The student will find an unpaid position in a good studio for one week to work as an assistant. To gain experience in a studio and to improve the workhabit are its objectives.

Photography Applied 4 480-420
This course is designed to prepare the final portfolio of work for presentation to prospective employers or clients critique and lectures as well as shooting demonstrations will take place each week. Topics are "shooting to sized layout", graphic projects, field placement, field trips to large commercial studios, food illustration.

Photography Basic 1 475-106
The basic photography course is designed to take a student, who has no previous photographic experience, through the photographic sequence. It is intended that the student become familiarized with the theoretical and practical aspects of the camera, the darkroom and the workroom.

Photography Colour Process 480-133
The common colour processes such as transparencies and colour negative material will be explained through lectures, demonstrations and practical assignments. Colour printing and filtration in the process will be skills the students will acquire and apply in the rest of the program. Hope colour processor is used.

Photography Colour Techniques 480-403
Students will take photographs at various locations in Toronto under various lighting conditions and with demonstration and supervision by the Instructor. The best colour fidelity together with perfect composition is the criteria for this course. The work produced during this course will be part of the students' portfolio. Large format cameras and transparency film is used throughout the assignments.

Photography Darkroom Techniques 1 480-121
This course will provide the student with basic black and white photographic darkroom skills. The objectives are to teach the materials and processes necessary for black and white photography. Topics covered are processing, pronting, print finishing techniques, darkroom operating procedures, lab assignments.

Photography Darkroom Techniques 2 480-221
This course by lecture and demonstration, increases the knowledge and skill of the student in black and white darkroom techniques to industry students. The course objectives are teach and demonstrate as well as give assignments on "high contrast materials, posterization, toning, texture, screen printing, reductions, sensitometry".

Photography Lighting 1 480-113
This course on basic lighting techniques will familiarize the student with the various sources and types of lighting. The student will learn the operation and maintenance of common types of lighting equipment, the effects produced by natural (day light) and artificial (tungsten) light and will help manufacture lighting accessories such as diffusers, snoots, cookies.

Photography Lighting 2 480-213
Complex lighting techniques will be demonstrated in a natural progression from the basic lighting techniques learned in Lighting 1. Lighting techniques applicable to various subjects, including tungsten lights, are discussed and demonstrated in the classroom and in the studios.

Photography Studio 1 480-102
Is an introduction of the medium format camera, it's place in today's common photographic studio. The course will deal with the following topics: photo light meters, cameras all types, normal and wideangle lenses, studio equipment, props and background as well as studio and location assignments will be given.

Photography Studio 2 480-202
Through lecture and demonstration this course will familiarize the student with techniques of a

large formal camera. With hands-on work the student will use a 4 x 5 studio camera for assignments. He will also process and print 4 x 5 sheet film as well as learn the correct perspectives, wings and tilts of a view camera.

Photography Studio 3 480-302

This course is designed to teach the student by demonstrations and assignments. The professional approach to "illustrative portraiture". Each assignment will deal with a situation in the framework of "client-photographer" relationship. The use of models and professional people will give the student expertise through participation and practical work. Studio and location assignments will familiarize the student with all types of portraiture to be used in today's annual reports, magazines, and advertising.

Photography Studio 4 480-402

Students will be introduced to the various approaches to handling people for the extensive branch of professional photography known by the title of "illustrative portraiture". Students will be called upon to produce photos for a wide range of clients such as art directors, newspapers editors, public relations, annual reports. By completing his assignments the student will become accustomed to photographing people under various lighting conditions.

Photography Theory 1 480-130

This course is an introduction to the theory of light, the composition of light (natural and artificial), its characteristics and behaviour. The response of photographic emulsions to the different types of lighting, and an introduction to basic options (as related to simple and compound lenses) will be followed by demonstrations of lens performance and aberrations. Basic formulae will be explained in relation to optical laws. This course is taught by the lecture method in conjunction with demonstrations by the instructor and student participation in blackboard problem-solving exercises.

Photography Theory 2 480-230

This course is an extension of Theory 1 and is designed to provide detailed information on the property of lenses, their function, uses of filters and other lens accessories. It will deal with photo and copyright in Canada. Theory of filters and filter factors, perceptual changes and distortion.

Photography Theory 3 480-330

The student will acquire background information on specialized aspects of photography and the theories behind their use. Fields covered are: archival processing, aerial photography, colour retouching on prints and negatives, photo equipment, and medical photography.

Photography Theory 4 480-430

To introduce the student to the concept and practical workout of quality control, lectures and exercises will be given on the monitoring of black-and-white and colour materials.

Photography 1 479-121

This course will introduce the Audio Visual Technician student to basic photographic techniques and procedures. The student will become proficient in the operation of cameras and darkroom equipment and will be continually involved in processing and printing his own black and white pictures. In conjunction with the AV Media Applications, Introduction course, students will take colour slides for single and multi-image shows. The student will present his pictures after enhancing them with a variety of display formats.

Photography 2 479-221

This course is designed to provide the Audio Visual Technician Program student with additional opportunities to expand his/her knowledge of photographic lighting principles and current photographic materials.

The presentation of the course involves demonstrations in lighting concepts followed with open lab/studio periods under the instructor's supervision. The student will photograph, process and mount each assignment within a prescribed time limit. Each student keeps a running production cost record of all assignments. The student will provide a completed written model release with the submission of each project.

Placement Services 117-310

Placement services are an advanced and specialized stage of the rehabilitation process. Vocational and residential placements must be developed which recognize the functional skills and developmental levels of clients. This course will demonstrate the use of assessment and adjustment information for placement planning, client support and followup. As well, affirmative action concepts in competitive employment and consumer/tenant rights in residential program services will be introduced.

Planning and Evaluation 123-427

A program without a purpose or with a purpose which is not fully understood runs the risk of losing both its target population and its funding. In an era where most of the funds available to Human Service organizations are program or project based, program development, planning and evaluation have become prerequisite for agency survival. This program will provide the student with the opportunity to sharpen their programming skills by: examining the planning process; reviewing the current literature on program planning and evaluation; problem solving, and developing program strategies. The methods used in the course will include simulations, role playing and directed reading. The course will be designed to help the student to deal with the practical problems they are currently addressing in the field, and to provide a forum for feedback, consultation and peer support.

Plant Identification 1 152-134

This course will provide the student information needed to understand the present system of plant classification and nomenclature. The student will be able to identify and become familiar with the different landscape uses of annual plants, and woody plants that are hardy and commonly used in Southern Ontario.

Plant Identification 2 153-201

This is a continuation of the first semester study of plants, including technical knowledge, cultural practices and plant requirements.

Plant Identification 3 152-334

This course will introduce students to greenhouse grown annuals, perennials, and tropical plants. Students will continue using the international system of plant nomenclature and terminology. Plant specimens to be studied will be available from the college greenhouses, ground or the Humber Arboretum.

Plant Identification 5 152-534

The student will be introduced to and tested on live specimens of plant material required in this course. In addition the student will study and be tested on growth and cultural requirements of these plants. Class time will be divided between instruction which will involve practical outdoor labs, and testing of plants studied. Testing will involve the use of live plants or selected specimens. In addition, the student will be required to recall plants studied through each semester.

Plant Identification 6 152-634

The student will be exposed and tested on live specimens and/or samples and slides of plant material required for thisprogram. In addition, the student will study growth and cultural requirements of these plants. Testing will involve the use of live plants and/or slides or specimens. In addition, the student will be required to recall plants studied each semester.

Political Process 123-225

This course is designed to provide a basic introduction to the political decision-making process which affects community and social services in Ontario. The course will examine how governments develop policy, as well as the methods used by agencies, communities and special interest groups to influence government policy.

Politics & Power Structures 124-110

Over the last two decades the proliferation of terrorist acts has become a critical concern to governments, police, and security agencies. The focus of this course will be the study of terrorist groups and analysis of their political ideologies, goals and operations, and their impact on democratic societies.

Portfolio 472-652

An advanced class in methods of graphic and personal/professional presentation. Students prepare their employment portfolio of samples from this class.

Post Production Techniques 1 - 16mm 478-138

The student will have to complete a 16mm film production. Technical aspects of picture and sound editing are discussed with respect to established procedures in the film and TV industry.

Post Production Techniques 2 - 16mm 478-238

This course is designed to provide the student with the practical and theoretical knowledge necessary to complete a 16mm film production. Technical aspects of picture and sound editing are dis-

cussed with respect to established procedures in the film and television industry.

Practical PR 1 476-137
This course will examine the general field of Public Relations and social responsibility, particularly as applied to a variety of special areas of non-pofit organization.

Practical PR 2 476-511
This course will examine basic PR practices as they apply to a variety of situations in which practitioners today find themselves. It will consist of analyzing case histories; discussing problems and solutions; thorough knowledge and practicalapplications of the specific tools, media techniques of specialized P.R. for profit-making organizations.

Press Time 1 475-500
This course is the fourth in a series designed to provide the student with the theoretical and practical knowledge necessary to produce a newspaper. The course will be taught as a lab in the newsroom. Simulating industry procedures, students will work to deadline, editing copy on the VDTs, developing and printing pictures, doing layout, writing editorials, writing headlines, pasting up and proof-reading. Students will also assume management positions as editor, news editor, sports editor, features editor and entertainment editor.

Press Time 2 475-600
This course is the last in a series designed to provide the students with the theoretical and practical knowledge necessary to produce a newspaper. The course will be taught as a lab in the newsroom. Simulating industry, procedures, students will work to deadline, editing copy on the VDT's, developing and printing pictures, doing layout, writing editorials, writing headlines, pasting up and proofreading. Students will also assume management positions as editor, news editor, sports editor, features editor, and entertainment editor.

Preventive Health 112-113
The course is designed to provide you with basic nursing care skills as well as creating an awareness of the basic considerations of health and illness. Classroom and laboratory instruction.

Principles of Floral Design 1 153-109
This course is an introduction to the essential fundamentals of floral design. The course will cover the various mechanical aids used in the florist industry, container types, design shapes and styles, types of flowers and foliage forms, and the necessary components of design that are utilized in floral arrangements including the elements and principles of design, colour and colour psychology.

Principles of Floral Design 2 153-204
This course will complete the study of theory and principles of design. It will cover the following: oriental designs, history of flower arranging during the various periods, colour psychology, wedding gown and bouquet coordination and bridal settings, sympathy/funeral trends and suitable styles of tributes, and a comparison study of oriental designs with European and traditional design types.

Print Internship 1 475-505
Students are required to intern at a daily or community newspaper, wire service or magazine. Arrangements for the internship program will be worked out by the coordinator in consultation with the students.

Print Internship 2 475-605
Refer to course description of Print Internship 1 (475-505).

Print Management 475-502
A detailed study of the organizational functions and operations required to publish a newspaper or magazine, this course is designed to provide the student with knowledge of the interactive relationships between publisher and department managers and their individual and collective responsibilities.

Printing Processes 1 471-304
This course applies the knowledge gained in previous typography and studio methods course directly to the demands of the printing processes most likely to be used by packaging manufacturers.

Printing Processes 2 471-404
Printing processes will be re-examined with special detail relating to the projects or originating in 3-Dimensional Design 2. Working drawings will be produced for all major projects in this course.

Production Management 481-509
A course designed to explore the effective administration of the Production aspects of a theatrical presentation or season of presentations. Types of situations examined will include: single productions (commercial and non-profit); school tours; summer stock; industrials; repertory and stock seasons; revues; regional and national tours; multi-media shows; etc.

The specific functions of the Production Manager, and Technical Director will be dealt with in detail, as will certain functions of the Stage Manager and Technical Department Heads. As much as possible, this course will take a 'case studies' approach.

Production Management 1 478-134
In this comprehensive study of business as it relates to Film and Television Production, emphasis is on adapting feature film production organizational methods to documentary film and television shows. This course is directly related to the practical organization of all second-year crews and assignments.

Production Management 3 478-334
This advanced course in Film/TV Business Management is mandatory for all third-year students and acts as the common production coordination for all third-year production assignments. More involved aspects of business are taught, covering the formation and operation of a a production company, assisting the student to find employment, as well as discussing various government granting agencies, and film festivals where students may enter their production for possible awards.

Production Management 4 478-434
This advanced course in Film and Television Production Management deals in more depth with business aspects of production and serves as the organization course for third year thesis productions.

Production Practices 1 481-105
Basic Stagecraft. An introduction to basic theatrical equipment and techniques through the performance of various technical tasks required by individual productions or the department. Tasks will be decided on a week-by-week basis.

Production Practices 2 481-232
Refer to course description of Production Practices 1 (481-105).

Professional Practice 473-132
Interior Design as a profession, office practice, business formation, contracts with client, residential and commercial divisions, contract documents, legal council, estimates and budgets, fees and compensations, order forms, special factors.

Survey of office procedures from establishment of practice through to supervising a complete job. Lectures and weekly seminars with guest speakers.

Professional Studies 480-137
Guest lecturers will demonstrate their particular specialties and discuss the problems and difficulties in their field of photography. This series of demonstrations will introduce new techniques and processes for the students to apply and/or modify for their own projects or client demands.

Programming (R.W.) 117-208
This course is intended to provide an overview of the key players, principle issues, and resources required to support rehabilitation programming for special needs persons. The issues will include identification of special needs target groups, funding sources and resource persons, and prerequisite activities which must occur in the rehabilitation process. Emphasis will be placed on contrasting service delivery models including institutional, normalization (community-based), and consumer models of service. Basic skills for client interaction, such as interviewing and counselling skills, will be reviewed.

Properties 1 481-225
The course is designed to introduce the student to the organizational skills and various classifications of properties in the Theatre. The tools, materials, method and techniques of making properties will also be introduced to the student through a series of projects in some of the basic categories.

Properties 2 481-405
This course is designed to introduce the student to more advanced property construction techniques through a series of more complex projects. While reviewing the organizational aspects of working with properties the student will be introduced to the responsibilities of the Head Properties Person.

Psychology 1: Understanding Human Behaviour 117-111

The course will examine the various factors that influence the behaviour of organisms--especially humans. While many psychological theories will be examined throughout the course, emphasis will be given to the practical application of these theories so that students will see how psychology influences on various aspects of their everyday life. The aim is to give students an understanding of how behaviour is acquired, how it is maintained, and how it can be changed.

Public Relations 471-137

This course will provide the student with a general background of public relations field but also focussing on the areas in which the package designer will be servicing this field. There will be an investigation of the ethics and professionalism required for good PR: the basis for which a designer forms and association with PR consulting firm or practitioner; both from the point of view of providing them service, and from that of obtaining good counsel in his own practice. The student will obtain an understanding of the principles of good PR relationship between client and design, between designer and industry, advertising agencies, and government agencies, both from the point of view of working smoothlywith them and further the concept of professional self-policing.

PR Lab 4 476-412

This course will give the student the opportunity to put into practice the techniques he has learned so far and to operate on his own with a minimum of direct supervision. There may be on and off-campus work in which he is asked to participate. In addition to the classroom work he will have four hours a week to carry out project work on his own or with a group. Prerequisite: PR Lab 3

PR Lab 5 476-513

Students under general supervision, will prepare research, plans, recommendations, work procedures and engage in discussions in connection with the work they will be doing as part of their field work, seminar Practical P.R. 2 and Writing 5.

PR Writing and PR Lab 2 476-210

The student will be expected to handle his/her writing assignments under some deadline pressure, and exercise growing self-criticism and independent approaches. A wider variety of styles for various media will be practised with some introduction to television and radio news and public service announcements. All assignments must be typewritten in acceptable professional format.

PR Writing 1 and PR Lab 1 476-110

Writing is the keystone of the Public Relations program. It is the first step in a series of courses which will develop the knowledge, skills and judgements needed by the student for PR work.

After an introduction to the theories of communication, it will concentrate on perfecting the student's general use of English; on building his/her ability to recognize what makes news; on writing news releases for print media; on business letterwriting of all kinds. All writing must be submitted in typewritten form.

PR Writing 3 and PR Lab 3 476-310

This course will give the student the opportunity to put into practice the techniques he/she has learned so far and to operate on his/her own with minimum of direct supervision. There will be on and on and off-campus work in which the student is asked to participate. In addition to the classroom work the student will be asked to spend two to three hours a week to carry out project work individually or with a group.

PR Writing 4 476-400

This section of the writing course will be devoted to extensive application of the skills already acquired and will be related directly to lab work.

PR Writing 5 476-501

This course deals more intensively with areas of specialized writing: speech writing, annual reports, financial writing, background and policy papers, digests and analyses, magazine stories and feature stories, presentations. The student will also receive guidance in the writing he must do for Lab 5 and Internship. The work will be closely related to the projects undertaken in Lab 5 and Practical PR 2.

Radio Drama 1 477-305

This course introduces the techniques required for working in the "theatre-of-the-mind" where sound is the only practical tool. It presents the opportunity to learn and practice the vital skills of story-telling that are essential to the "on-air" personality. Most importantly, it clarifies the need for interrelating with others using one's voice and personality.

Radio Lab 2 477-238

Radio Labs 1-2-3 are training sessions that allow the student to apply the practical skills learned throughout the entire program. Each project is set up as an opportunity to utilize various pieces of equipment and challenge creativity in exactly the same way and under almost the same conditions as found in the broadcast industry.

Radio Lab 3 477-502

Every fifth semester student will get the opportunity to perform every skill that has been taught thus far in the Radio Program. Once each week the facilities of CHBR are transformed into a viable, realistic, broadcasting unit. Under the direction of the instructor, the students will program and operate a radio station under the strict regulations of the CRTC. Over the semester each student will perform in as many categories as possible i.e. P.D., announcer, copy writer, producer, operator, music programmer, news-writer-reporter, sports-writer-reporter, interviewer, etc. All the above duties will be carried out under actual broadcasting conditions.

Radio News 1 475-133

This course introduces the student to the world of radio news in all of its aspects. The techniques used in gathering, producing and disseminating radio news on a daily basis are studied. The course introduces the student to the unique style of writing radio news, interview skills for broadcast, announcing techniques and proper use of tape recorders and microphones. It also examines the differences between private radio news and the CBC, as well as exploring the importance of audience, ratings and advertising at stations.

Radio News 2, & Voice Train. 475-235

This course continues the development of skills from the first level of the program. It will concentrate on writing, interviewing, production techniques (including tape-editing) and news-gathering. In addition students will get in-depth voice-training each week with actual vocal exercises done in class with the instructor. Students will prepare, write, edit, produce and voice a weekly newscast on to tape.

Radio News 3 475-333

This course hones the skills that have been developed in the first two levels of Radio News. It concentrates on improving writing for radio news as well as sharpening production and line-up techniques. Students work on improving and further developing techniques of tape editing, producing wrap-around reports, choosing actualities, writing bridges, and writing effective voicers. In addition, voice training will continue on a weekly basis with advanced exercises and techniques introduced.

Radio News 4 475-507

This is an advanced course that focuses on the actual production of radio news, particularly from the viewpoint of a reporter/writer. It examines a daily news operation in all of its aspects: finding the news, developing contacts, writing and rewriting, producing lively news reports, covering a beat, covering a major disaster, covering political campaigns and election nights, advanced production techniques and line-up and delivery of a newscast. As before, students will have regular voice training classes to begin each weekly session.

Radio News 5 475-607

This is the most advanced level of the Radio News courses in the program. Classes will operate as labs with students working one-to-one with the instructor on writing, voice skills, production techniques and development and follow-up of news stories. Students will regularly announce newscasts on Humber's radio station and will bring in air-checks of their newscasts for critique. Also, they will produce wrap-around reports and news features on a regular basis.

Radio Seminar 477-107

This course is designed for graduating and certificate students. Since all aspects of radio broadcasting cannot be discussed within the framework of three years, students will be expected to conduct a seminar on the topics not discussed in formal classes.

Repertoire Development 3 137-313

This course is designed to present students with material that illustrates the variety of musical styles expected of a professional jobbing musician. The material

covered will expand the student's existing knowledge of contemporary commercial music.

Repertoire Development 4 **137-413**

Refer to 137-313.

Repertoire Development 5 **137-513**

Repertoire Development is a continuation of Rep. Dev. 3 & 4. This course is designed to present students with material that illustrates the variety of musical styles expected of a professional jobbing musician. The material covered will expand the student's existing knowledge of contemporary commercial music.

Repertoire Development 6 **137-613**

Refer to 137-513.

Research Techniques **123-324**

This course is designed to give students a basic understanding of how social research is utilized in the human service field. The course will provide students with the basic skills to do demographic profiles, statistical reports and needs assessments. The course will also provide the student with an opportunity to develop appropriate instruments necessary for social research as well as to identify and utilize existing statistical information.

Residential Module **112-427**

This course will give practical experience in dailyliving, integration as well as program design and implementation.

Resource Management **471-406**

An analysis of present resources, available to package convertors (forests and oil reserves, etc.) and an investigation of possible new materials which will replace existing sources as these become depleted. Students will also analyse recycling and other attempts to preserve our diminishing resources.

Retail Advertising and Promotion **243-312**

Advertising and promotion often borrow the language of war. We wage promotion campaigns and aim our advertising at a target market. We plan strategies and force the competition to react with a defensive plan. It's a tough, competitive world, and the retailer must meet the opposition with careful analysis and be able to coordinate wise promotional decisions. The student will study the production of various retail promotions, with attention to scheduling, evaluating and working with experts in the field.

Retail Math **243-105**

Math is very much a part of the science of retailing. Fortunately, it is a skill which virtually anyone can master with a little patience and practice. The Retail Management student will learn the keys to understanding how retailing principles work in order to generate a profit.

Retail Radio Sales **477-135**

Selling "Air Time" is the highest-paid facet of radio broadcasting. As such, it is the most demanding on those who choose to take this pathway. This course will provide a grounding in Air Time Sales" skills i.e. how ;to work with BBM figures; how to open and close a sale; how to make use of computerized services; how to prospect for new accounts, etc.

Sales and Selling Skills **243-104**

Success in the retail business depends largely on salespeople. Many kinds of merchandise might sit on the shelves forever without sales people to show customers how products meet their needs and wants. Selling is an art, but it is an art which can be learned. The Retail Management student will learn the necessary skills in order to successfully follow each step of the transaction, from the initial approach to the customer, through to the closing of the sale.

Scene Study 1 **481-126**

There are many ingredients that go into the making of a skilled actor: learning to concentrate so that self-consciousness does not interfere with the portrayal of a character; being calm and confident despite fears; developing an expressive voice and body so that actions and reactions are received visibly, audibly, and compellingly; creating characters whose desires and behaviours may be very different from one's own and, most importantly, understanding how to use one's imagination in order to experience the life of the character. This course will endeavour to train students towards these ends through a series of practical exercises, rehearsals, and discussions.

Scene Study 2 **481-228**

Refer to course description of Scene Study 1 (481-126).

Scene Study 3 **481-327**

The purpose of acting is to move and impress audiences with the subtle moment-to-moment changes in a character's thought content; to create authentic thoughts and behaviours that appear to be (and are experienced by the actor as being) spontaneous. The course will explore this purpose, attempting to have students experience the life of the character in relation to the "action" of the scene.

Scene Study 4 **481-428**

Refer to course description of Scene Study 3 (481-327).

Scene Study 5 **481-504**

This course will lead the student through an in-depth analysis of a series of texts representing the major periods of theatre, from the Elizabethan to the contemporary. An examination of staging aspects as well as thematic and structural perspectives of the play will provide the student with a set of "tools" with which he or she can approach any text, and break it down into acting units to facilitate both comprehension, and therefore performance.

Scenic Painting 1 **481-320**

Students will be given an opportunity to learn, through observation and practise, the basic techniques of scenic art.

Scenic Painting 2 **481-420**

A continuation of techniques from scenic painting and development to realize the breakdown of any picture into its basic elements for reproduction.

Script Writing 1 **478-100**

In this introduction to the basic skills needed to prepare, organize, and write scripts for film projects, the student will research, prepare, and write outlines, treatments, and shooting scripts, and will prepare story boards and detailed scripts for several projects, including all assignments in the first semester Super-8 Film Production Workshop.

Script Writing 3 **478-300**

This course continues to develop journalistic writing skills for Film/TV, as well as writing interviews and researching the area of specific craft formats such as educational, industrial, industructional, PR, etc. In the winter semester it expands into the area of commercials and dramatic formats.

Scripting 1 **479-115**

This course provides an introduction to the basic skills needed to prepare, organize and write scripts for A.V. presentations, film and television projects. Students will learn how to research, prepare and write outlines, treatments and shooting scripts. They will also be required to prepare story boards for several A.V. projects.

Scripting 2 Workshop **479-215**

Audio Visual Technician students in the Production Option are introduced to the basic skills needed to prepare, organize and write scripts for AV presentations, film and TV projects. Students will learn how to research, prepare, and write outlines, treatments and shooting scripts. They will also be required to prepare detailed scripts for several AV projects.

Security Practices **124-108**

This course will give the student an understanding of security and crime prevention as it relates to a variety of settings. Emphasis in the course will be directed towards all aspects of physical/personal security in the form of crime prevention techniques which reduces the opportunity to commit crime. It is designed to make the student aware of the careless behaviours which increase the vulnerabilities to crime.

Seminar 1 **476-413**

Investigation, analysis and discussions of public relations activities with specialists in fields selected for each seminar as a resource person.

Set Design 1 **481-321**

Students will be introduced to the history of stage design, perception of objects and the fundamentals of stage design.

Set Design 2 **481-421**

Through the examination of two scripts students will continue to explore various methods for arriving at suitable playing spaces for actors to best express their craft within the visions of the author and director.

Set Design 3 **481-521**

Refer to course description of Set Design 2 (481-421).

Sexuality and Mental Retardation **112-327**

This course is designed to help the student understand human sexuality in general and the so-

cial-sexual development of the mentally handicapped person in particular.

Singing 1 **481-117**

The course teaches students: a basic knowledge of theory, including, note reading, rhythm, key signatures, time signatures, major and minor scales, a basic strength exercise for correct posture and relaxation,a series of voice warmups, and tongue relaxers, and isolation exercises, an understanding of correct breath control, effective vocal warmups, 2 - 3 - 4 part singing, solo singing, knowledge in choosing correct repertoire.

Singing 2 **481-217**

Provided the student has successfully completed the necessary theoretical rudiments of music as required in the Singing 1 coursework, the Singing 2 students will expand their knowledge of note reading, key, timesignatures, and rhythm at a more advanced level. At this level, the signing fundamentals involving exercises for posture, spinal alignment, articulation breath control will be expanded upon to include solo singing by all participants. Also a portion of the coursework will be devoted to discussion of appropriate repertoire selection for the various vocal categories.

Site Layout & Survey Math 1 **330-015**

Students are introduced to basic land surveying and its application in the landscape industry. Practical labs will expose students to basic surveying equipment.

Social Psychology **123-117**

Students will study the psychological factors which influence human behaviour. Psychological theories will be examined which have practical application to the human services field.

Soils **164-117**

A study of Southern Ontario soils in geographical, geological and horticultural terms, stressing the relationship between theory and trade practices involved in growing plants in soil.

Solo Performance 3 **137-332**

This course is designed to prepare the student for his/her role as a soloist. The lecture series will provide information about stage presentation, appearance, dealing with nerves, and phrasing. An analysis of the work of the world'd greatest soloists will be provided. Students will be required to perform assignments in class for evaluation by their peers and prepare for a mini recital.

Solo Performance 4 **137-432**

Refer to 137-332.

Solo Performance 5 **137-512**

These courses help the student acquie the skills that are necessary for concert performances. They are a follow up to the initial lecture series provided in Solo Performance 3 & 4. Students are given individual instruction to enable them to successfully perform the solo recital, which is the prime objective of the courses.

Solo Performance 6 **137-612**

Refer to 137-512.

Sound and Synthesis 1 **137-110**

This is a basic course which will helpthe student to gain the knowledge necessary to work in a contemporary musical environment which makes use of synthesizers, computer-based instruments, effects devices, etc. The course is open to all music students.

Sound Recording Post Prod. Workshop 1 **478-305**

Refer to course description of Film, Sound & E.F.P. Workshops (478-302).

Sound Recording Post Prod. Workshop 2 **478-405**

Refer to course description of Film, Sound & E.F.P. Workshops (478-302).

Sound Recording 1 **478-137**

The student will learn to record high quality sound for film & television productions. The course also will expand knowledge in sound studio recording techniques as well as sound mixing of multiple sound tracks for all media, film, T.V. & audio visual.

Sound 1 **481-324**

A general introduction to all aspects of Theatre Sound. This will include the necessary basis of physics, acoustics and psycho-acoustics, and electronics supporting sound practical. The bulk of the work in the course, however, will be practical, hands-on experience with sound equipment.

Sound 2 **481-424**

Refer to course description of Sound 1 (481-324).

Special Needs Populations **123-327**

This course will introduce the student to the special needs client and his/her community. Emphasis will be placed on the developmentally, physically and emotionally handicapped. Students will learn the pathology of these handicaps. They will study how families cope with the special needs child/adult; the special needs client in the community; and the politics of institutionalization.

Stage Management 1 **481-122**

This course will cover the basic organizational and practical skills for the preparation of a theatrical production and stress the practical application of these skills.

Stage Management 2 **481-222**

Refer to course description of Stage Management 1 (481-122).

Still Photography **478-106**

This course will introduce the student to basic techniques in black and white photography. Students will acquire all the necessary skills in photography, geared mainly towards cinematography. It will be demanding on student's technical skills, readiness and personal imagination and creativity.

Still Photography 2 **478-206**

This course will be expanding the skills and knowledge acquired in Still Photography 1 with emphasis on creativity, picture building, composition and use of lenses, lighting and printing techniques.

Some assignments will intertwine with projects in other courses.

Still Photography 3 **478-306**

The lectures will build on and refine the knowledge in black and white photography acquired in previous semesters and will expand to colour and black and white slide presentation and location lighting techniques, to enhance the 16mm cinematography course as well as to cover A/V production techniques.

Still Photography 4 **478-406**

The lectures will build on and refine the knowledge of black and white photography acquired in previous semesters. The field of colour and black and white slide presentation and location lighting techniques will be discussed. This will enhance the 16mm cinematography course. As well, audio visual production techniques will be covered. Some assignments will be combined with projects in other courses.

Structure & Function (R.W.) **733-110**

This course, required for students in the Rehabilitation Worker program, is designed for the studentwith limited background in this area. Structure and function of the human body will be discussed to provide a background which will enable the student to understand the basic concepts of health and of disease processes.

Studio Methods 1 **470-1**

The Studio Methods course consists of a series of projects, each project designed to clarify one or more essential methods used in the production of layouts or camera-ready mechanicals. The student will learn the procedures necessary to produce layouts, from minis through to rough layouts or comprehensive layouts and from these layouts the steps required to prepare mechanical art for the printing plate maker.

Studio Methods 2 **470-2**

Having satisfactorily completed Studio Methods 1 the student will develop further with projects to cover; methods of reproduction, keyline colour separation, embossing, water-colour rendering, die line drawings, operation of the photostat camera and the Luci.

Styling For Fashion Photography 1 **133-650**

Students will work through a series of projects designed to develop skills in fashion coordination for photography and advertising. Each student may select the position of stylist or make-up artist while assembling a photographic portfolio. The requirement for this course is the development of a professional portfolio for employment and agency interviews.

Styling For Fashion Photography 2 **133-653**

Refer to course description of Styling For Fashion Photography 1 (133-553).

Super 8 Production Workshop 2 **478-2**

This course is designed to provide the student with the technical and artistic knowledge and the practical skills required to complete the assignments, related to the elements of professional cinematography.

This will be accomplished through lectures, demonstrations and practical "hands-on" workshops in the studio and on location. Technical and artistic image quality is emphasized toge-

with other important elements of film making, such as editing and sound techniques.

The main emphasis is on the use of the professional light meter for exposure and contrast control calculations.

Super-8 Production Workshop 1 478-101

Students will acquire the technical capability to complete a series of assignments of increasing technical difficulty. This course continues to develop the technical skills of the students by introducing sound recording techniques, Super-8 editing and sound projectors. Some assignments will intertwine with projects in other courses.

Survey of Film Music 137-119

The rise and development of the movie soundtrack will be examined through the use of recordings, videotapes, and scores. Special consideration will be given to the musical styles, aesthetics, and techniques employed in film scoring and the contributions of composers who have worked in the film medium.

Synthesis 2 137-210

This course is a continuation of Synthesis 1. Special attention is focussed on digital and computer based instruments, effects devices and digital recording.

Systems Development 1 472-453

A broad investigation of systems and module theory. Study of systems, multiples, nodes, bridges and relationships in nature--art and design--architecture and production; analysis of successful systems and varying definitions of systems.

Systems Development 2 472-552

A continuation and development of Systems Development 1 in which more advanced principles of structure and detail are introduced. Emphasis is placed on applications of theoretical principles in functional design proposals/-models. Attention will also be given to different presentation methods required to adequately communicate and "Sell" systems design.

T.V. News 1 475-134

This is the introductory television news course. It covers the basics of writing television news stories, with and without visual material. In addition, students will be introduced to the use of portable, black and white VTR equipment.

Fundamentals of Reporting

T.V. News 2 475-302

This course continues the development of skills introduced in the first year television classes. It will concentrate on the basic techniques of television news writing and reporting including single color camera VTR field production and editing VTR for news.

T.V. Production/Direction 478-205

While concentrating on directing, students will continue to learn studio production techniques and functions in small groups on a rotation basis. The course will begin with two classes which examine the correct use of mobile video cameras and recording equipment as well as the video editing facilities.

Technical Communications 1 472-151

A course in Basic Drafting Theory as it applies to standard practices for representation of 3-Dimensional objects. C.S.A. practices form the framework of reference. There is a class time of 3 hours per week for lectures, demonstrations and discussions of equipment and techniques.

Technical Communications 2 472-251

Continuation and development of Technical Communications 1, with extensive emphasis on design detailing of products in shop drawings.

Technical Illustration 1 471-207

Students will develop their drawing and illustration skills learned in Drawing 1 (Perspective) and apply it to different media such as markers, line and wash illustration.

Television Production 1, Introduction 479-123

This course is designed to introduce basic television operations and production techniques in order that the student become competent to operate television studio equipment and develop and produce simple television programs.

Television Production 2 479-223

Students who have completed the basic television course, will learn the operation of equipment in the colour television studio. They will have the opportunity to expand the basic skills learned in the previous semester by researching and preparing scripts which they will direct either on location or in the studio. Students will also perform as crew members for other student productions. Throughout the semester, student's progress and performance will be evaluated on program preparation, production, directing, coordination and crewing competency and attitude.

Textiles 473-131

This is an introduction to the aesthetic characteristics of textiles and their functions in the interior environment.

Theatre History 1 481-127

Through discussion and lecture format this course will explore various periods of theatre history. Plays appropriate to each period will also be read and discussed from both a historical point of view and with an eye to production. Production elements such as stage form, design of costume and acting/directing styles of each period will be covered.

Theatre History 2 481-227

Refer to course description of Theatre History 1 (481-127).

Theory & Practice of Therapeutic Act. 1 113-109

This will deal with various forms of creative activities (painting, clay, paper mache, drama, woodwork, etc.), children's games, sports activities, outdoor education and camping skills. These activities will provide the student with ideas and some practical experience in carrying them out. Also included will be discussions on creative and therapeutic values of the different activities with children and adolescents. General age groups to be covered are primary, middle and late childhood and adolescence for both the disturbed and the average child.

Theory & Practice of Therapeutic Act. 2 113-207

A continuation of Theory & Practice of Therapeutic Activities 1.

Theory 2 137-205

This course is a continuation of Theory 1. Melody writing and analysis receive emphasis along with the study of chord function and harmonic analysis. Studies in harmonic progression are continued.

Theory 4 137-405

This course is a continuation of Theory 3. It includes melody writing, melodic analysis, harmonic progression.

Thesis 1 472-553

This course, combined with Thesis 2 (semester 6), gives the student the opportunity to identify a specialized area of interest and pursue an in-depth project encompassing the full design process. Thesis 1 is intended to lay the groundwork for project execution in Thesis 2.

Trade Calculations 1 610-116

This course consists of basic surveying practice and applied mathematics. The apprentice learns how to use a surveyor's level, rod and chain as required to carry out grading operations. Also plan interpretation and application are included. Typical mathematic problems are solved using both the S.I. and FPS measurement systems.

Trade Calculations 2 610-311

This course of study includes estimating for landscape/nursery students and materials quantities and preparation for golf course students.

Trade Communications 1 610-114

This is an applied communications course. The apprentice is instructed in proper communication methods necessary to work effectively in the industry. Verbal communication with customers, superiors, and peers, written reports and documentation, and comprehension are included.

Trade Practice 1 610-117

This is a composite practical course consisting of the following areas of study: the proper and safe use of hand and power tools; the construction of wood structures, hard surfaces and walls in the landscape; the maintenance of 2 and 4 cycle internal combustion engines commonly used in the landscape industry and the digging, planting, and after care of typical landscape plants in a variety of sizes.

Trade Theory 1 610-118

This is a composite theory course consisting of the following areas of study: the proper nomenclature, cultural requirements and characteristics of typical landscape plants in Ontario; the identification, testing and using of soils commonly occurringin Ontario;

the identification and treatment of plant diseases and pests; the identification and establishment of common turf grasses and the selection and application of fertilizers; the selection of timber and lumber for landscape construction and all aspects of plant development and growth including plant physiology and function.

Treatment Philosophies 1 **113-508**

This course will help the student become aware of the major schools of thought involved in helping disturbed clients. The focus will be on history, basic concepts, techniques, case examples and evaluation of each. This course is aimed at helping the student consolidate his/her own theories and views of the therapeutic process as well as to aid the student in his/her knowledge of the helping profession.

Treatment Philosophies 2 **113-608**

A continuation of Treatment Philosophies 1.

Tree Diseases and Control **164-306**

This Urban Tree course will introduce students to plant pathology via a practical and introductory examination of biotic and abiotic agents responsible for plant decline and failure. Signs, symptoms, mode of action and control techniques will be discussed.

Tree I.D. 2 **164-202**

This Urban Tree course is an exstension of Plant Identification 1 and involves the identification of trees by winter wood samples and from a distance via natural form.

Tree Identification 3 **164-302**

A continuation of Tree Identificatipn 2, with emphasis on plant selection and suitability for a wide range of urban sites.

Tree Identification 4 **164-402**

A continuation of Tree Identification 3

Turf Management **152-520**

Refer to course description of Turf Management 1 (152-420).

Typography 1 **470-107**

The purpose of all printed matter, whether or not it is applied to advertising, must inform, sell a product, sell a service or create goodwill to a sponsor. Therefore, as an art form, the better the design, the greater the legibility, the easier it will become for the viewer to read and comprehend. A basic mechanical knowledge is necessary before we can actually design with type. Therefore, hand lettering for both layout and reproduction, is an important part of this program. We cannot indicate or specify type unless we know the letter forms of the faces and styles we wish to use.

The projects in this course will familiarize students with sans-serif and serif type faces and train students to render these styles in both layout and reproduction form, in a professional manner.

Typography 2 **470-207**

Emphasis will be made on the measurement and fitting of typography to given areas. More and more art studios are leasing or purchasing computer style type processing machines. It is important to understand the fundamentals of accurate type mark-up to avoid expensive changes or revisions to type ordered incorrectly. The accurate rendering of various type faces will continue from Typography 1 to assure that the student is fully familiar with the mechanics of typography and lettering which is absolutely essential in the production of any advertising piece.

Typography 3 **470-307**

Imaginative design with type and lettering is the important theme in this semester, finishing many of these original designs as camera ready art.

You will develop further lettering skills in commercial brush script and wedding style scripts in black and white and white on black. Reviewing the knowledge gained in type mark-up and copy fitting in Typography 2, you will further explore this area, readying your skills for the computer typesetting in the Coven Lab where you will use Morgenthaler-Linotron 202/N equipment and set both headings and text.

Typography 4 **470-407**

This is the last and final semester. Deadlines and quality will be as important and demanding as those found in the advertising business. Every piece of artwork whether it be layout, design or reproduction art will of necessity, be professional in every way. Presentation, with ample margins, simply displayed in good taste, will reveal the true craftsman.

TV Commercials 1 **133-502**

On camera instruction will include voice training and movement necessary for a professional performance. Students will leran how to apply cosmetics on screen performers while delivering a commentary on the method and details of application. Instruction will also be offered on individual involvement in a TV commercial as a make-up artist, stylist or performer.

TV Commercials 2 **133-602**

Refer to course description of TV Commercials 1 (133-502).

TV News 3 **475-334**

In this course students use the skills learned in T.V. News 2 to produce television newscasts. Although the technical content of the course is considerable, the emphasis is on the journalistic aspects of television news broadcasts.

TV News 4 **475-506**

In T.V. News 3 and Basic T.V. Production, students covered the basics of television news broadcasts. T.V. News 4 builds on these skills. The emphasis is on writing and producing television news inserts and news programs although students will also work on documentaries and public affairs broadcasts.

TV News 5 **475-606**

In T.V. News 3 and 4, students learned and practiced the basics of television news production. T.V. News 5 builds on these skills. The emphasis is on writing and producing television news inserts and news programs. Students will also work on documentaries and current affairs broadcasts.

TV Performance 1 **481-318**

Stage and screen acting are related, but different. Students in this course will learn to analyse scenes from actual film scripts in terms of objectives, shifts, status, relationships, colours, discover.

Then they will learn general and specific techniques of acting for the screen and apply these through performing the analysed scenes on camera. Videotaping is part of every session and detailed critiques are given by a working professional with complete knowledge of film and video. Scenes are produced in conjunction with the Third year TV production kit, with interpretive work, technical rehearsal and taping in the fully equipped TV studio.

TV Performance 2 **481-418**

Refer to course description of TV Performance 1 (481-318).

TV Production 3 **479-323**

The different aspects of television production and operations will be reviewed and expanded on at the beginning of this course. At the same time students will be preparing scripts for individual and/or group productions. The type of programs to be produced during this semester will be determined by the class in consultation with the instructor. These programs will reflect the types of production that a student might become involved with after graduation. All programs will integrate advanced production techniques in program planning, pre and post studio production, audio and video mixing, and special effects.

Urban Forestry **164-313**

This course will examine the principles of urban forest management, including planning procedures, related by-laws, related forestry practices, woodlot restoration and re-vitalization.

Urban Sociology **123-118**

This course will provide students with a basic understanding of sociological principles and their relevance to contemporary urban life. The course will examine the impact of urbanization on the human conditions and how groups and communities deal with the stresses of urban life. Finally the course will examine the current trends and social problems which exist in urban environment and their implications for human services.

Urban Sociology-City Issues **117-112**

This course will provide students with a basic understanding of sociological principles and their relevance to contemporary urban life. The course will examine the impact of urbanization on the human conditions and how groups and communities deal with the stresses of urban life. Finally the course will examine the current trends and social problems which exist in urban environment and their implications for human services.

Vocational Rehabilitation Training Module **112-408**

This course will give practical experience in vocational training for handicapped people.

Voice 1 **481-108**

This course is almost entirely participatory. When students are not actually making sounds themselves, they will be learning to lis-

ten intently and analytically to one another. In each class, exercises based on the course objectives and adapted to individual needs will be practised. In the second hour of the long class, work will be done on a wide variety of text material, coordinated with other subjects in the Theatre program. Self-discipline and commitment to quality will be required.

Voice 2 481-208

Refer to course description of Voice 1 (481-108).

Voice 3 481-308

This second year of vocal traing is meant to carry the student farther in the refining of his use of the vocal instrument. To this end there will be practical work in terms of regular warmups, reading and speaking of scripted passages. Additionally, there will be work in phonetics designed to develop the student's ability to hear, not only his own sound, but those of others. The work with phonetics is meant to heighten the awareness of spoken sound generally but also to help students in the acquisition of different speech patterns i.e.: dialects for use in character work.

Voice 4 481-408

Refer to course description of Voice 3 (481-308).

Voice 5 481-508

In this third year of training, students are expected to show a greater awareness of the specifics of speech production and apply these specifics to their work in class. The course will continue to involve a variety of reading and speaking situations with instructor, group, and self-evaluations with a view to maximizing feedback to each student.

The aim of the course is to turn the student loose with an ability to feel and hear his voice sufficiently that he can continue to work towards modifications even after he leaves the program. Additionally, there will be work in phonetics designed to help the student's ability in the acquisition of different speech patterns i.e.: dialects for use in character work.

Volunteer Management 123-430

This course provides basic knowledge and skills related to working with volunteers in direct service and program delivery. The roles of volunteer community boards and staff in the administration of community agencies will also be examined.

Wholesale and Retail Fashion Industry 1 133-303

A course designed in two parts to provide students with the knowledge of the organization, management and marketing of the garment industry including manufacturing, wholesaling and retailing. Classroom sessions and field trip assignments including placement in November at the Ontario Fashion Exhibitors Market are the methods of instruction used in this course.

In this semester, an indepth study of the production methods of the garment industry, including the manufacturing requirements for location, labour, raw materials and market. Students will become familiar with textiles, brand name-labelling, content regulations, grading and packaging. The distribution methods of the wholesale industry will be examined.

Wholesale and Retail Fashion Industry 2 133-403

The course builds onto the skills developed in Wholesale and Retail Fashion Industry 1. This semester will teach students the techniques and fashion terminology required for effective selling, handling personnel, budgeting and marketing required for fashion boutique management in the retail sector. The legal, accounting, financial and marketing research techniques required to produce a small business.

Woodwind Minor (Music Elective) 137-116

This course is designed to familiarize the student, who is not a woodwind major, with the basic fundamentals of playing saxophone, flute and/or clarinet. (While flutes and clarinets can generally be supplied, students who wish to study saxophone, will need to provide their own instruments).

Work Experience Fieldwork 479-124

The student spends the equivalent of five full days a week working at an Audio Visual related job as part of an organization's or institution's staff. While in the employ of the work experience operation, the student will be provided with on-the-job instruction and supervision by practicing audio-visual supervisors or technicians. The student and employer will establish realistic performance objectives pertinent to the particular work environment.

Writing for Radio 1 477-110

This course provides an introduction to the field of writing creative commercials for radio. Classes are conducted in a lecture-lab format. All projects are completed in class.

Writing for Radio 2 477-200

This course will present the various components that constitute the radio commercial. Both the retail and national concepts will be dealt with. The course will be conducted on a lecture-laboratory concept. After the topic for the week has been presented, oral assignments will be given, and each student will be expected to complete the assignments within the class time allotted for same. Students not able to be in class will be expected to acquire the assignment by themselves and complete it to the instructor's satisfaction under terms given by the instructor.

Writing for Radio 4 477-400

The course will be conducted on a purely laboratory setting. Each student will be expected to choose one area of interest other than commercial writing which will be compulsory. The student will be expected to write a detailed weekly contract including assignments in both commercial writing and the one chosen field. The student will prepare an instruction list under the instructor's supervision which will be brought to class weekly. The student will be expected to complete the assignment for final presentation within the classroom hours. The instructor will review and critique each assignment on a weekly basis.

Writing For Radio 3 477-300

There are some specialized areas in radio writing that are not encompassed in commercial, news or sports broadcasting. After a verbal introduction to the scope and goals of the course, classes will consist of lectures, discussions and verbal assignments.

16MM Cinematography 1 478-143

This course provides students with the theoretical and artistic knowledge as well as the practical skills required to complete a series of multi-discipline assignments of increasing technical difficulty. This will be accomplished through illustrated lectures, lighting and camera equipment demonstrations and workshops. Technical and artistic image quality is emphasized.

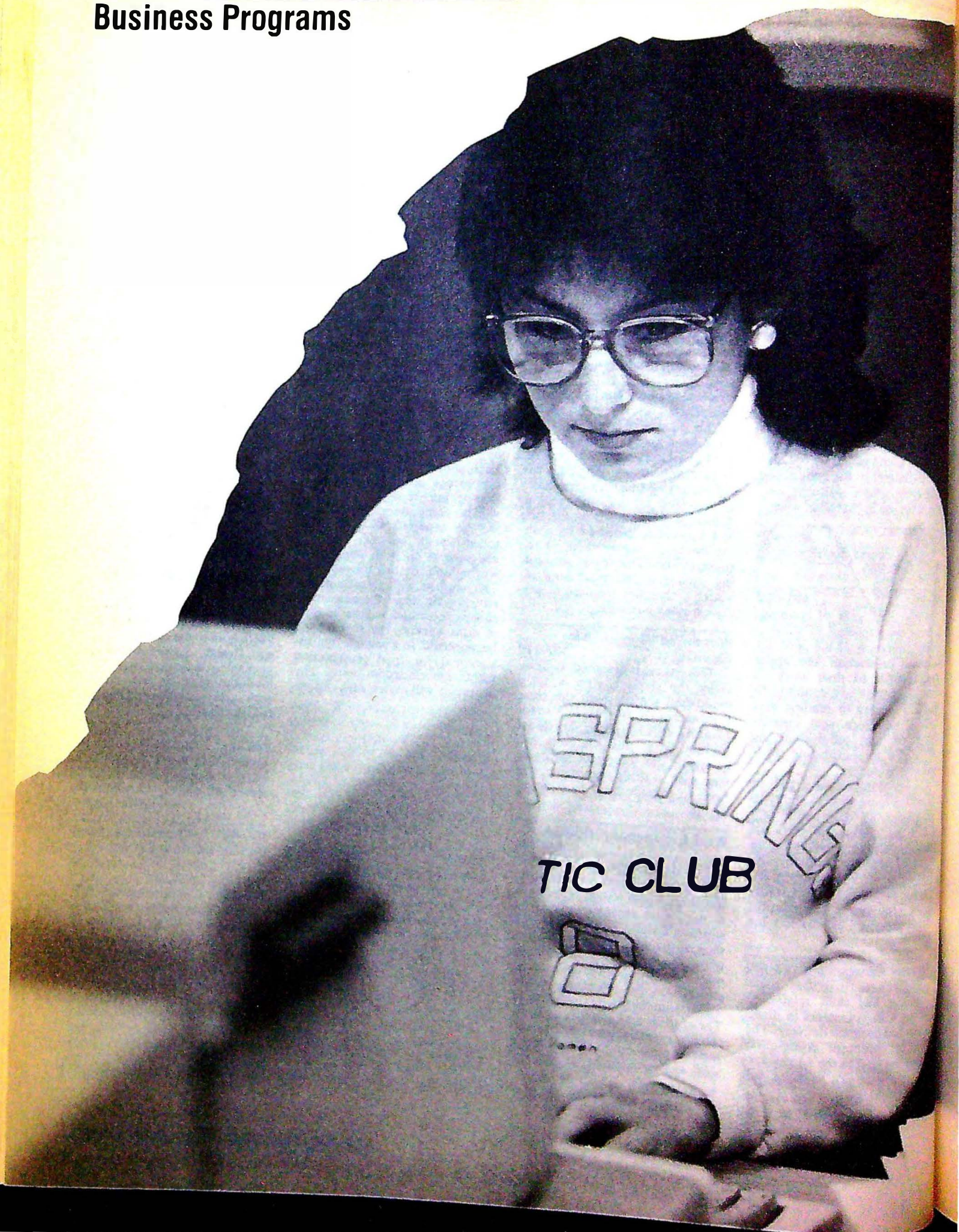
3-Dimensional Design 1 471-303

This course marks the change from projects which related to two-dimensional graphics and package designs, to the three-dimensional design demands of cartons, bottles, cans and other containers found in the supermarkets and chain stores.

3-Dimensional Design 2 471-403

Further design problems are set to explore the wide variety of answers open to the student of Package Design. Again, the major packaging materials are examined--but with an emphasis on both surface graphics and package construction.

Business Programs



Accountancy Diploma***

North and Lakeshore Campuses

Students may choose either the Four Semester or Six Semester program starting in September

This program is designed to assist students in forming a base of studies so that they can assume the duties of an accountant in today's changing economy. In addition to accounting procedures, the program offers training in data processing, marketing, tax and corporate law, and management studies.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent, or mature student status
- grade 12 English, general level
- grade 12 business and consumers mathematics, general level

Job Opportunities

The graduates of the Accounting Program find jobs in accounts payable, accounts receivable, cost accounting, inventory control, internal auditing and payroll departments.

If you are seeking a professional designation, taking this program is a good way to start. Within two or three years of graduation it is possible for you to become a C.G.A. (Certified General Accountant) or a C.M.A. (Certified Management Accountant). These respective accounting associations will allow credits from this program towards their professional designations.

Curriculum

2/3 Year Accounting Diploma

Semester 1	Credits
221-011 Intro. to Accounting 1	4
251-020 Personnel	3
233-035 Elements of Information Systems	4
241-010 Marketing 1	4
926-121 Micro Economics	3
941-102 Communications 1 *Pre-Req:* 941-205 Introductory Communications	4

Semester 2	Credits
221-111 Intro. to Accounting 2 *Pre-Req:* 221-011 Intro. to Accounting 1	4
281-010 Business Mathematics	4
233-170 Elements of Systems *Pre-Req:* 233-035 Elements of Information Systems	4
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4
926-221 Macroeconomics	3
General Studies	3

Semester 3	Credits
225-210 Cost Accounting 1 *Pre-Req:* 221-111 Intro. to Accounting 2	4
223-214 Intermediate Accounting 1 *Pre-Req:* 221-111 Intro. to Accounting 2	8
254-040 Elements of Law 1	3
251-120 Organizational Management 1 *Pre-Req:* 251-020 Personnel	3
283-110 Business Statistics *Pre-Req:* 281-010 Business Mathematics	4
General Studies	3

Semester 4	Credits
225-310 Cost Accounting 2* *Pre-Req:* 225-210 Cost Accounting 1	6
223-313 Intermediate Accounting 2 *Pre-Req:* 223-214 Intermediate Accounting 1	6
228-712 Income Tax 1 *Pre-Req:* 223-214 Intermediate Accounting 1	4
251-220 Organizational Management 2 *Pre-Req:* 251-120 Organizational Management 1	3
234-581 Personal Computing 1 *Pre-Req:* 233-025 Introduction to Information Systems	3
General Studies	3

***Equivalent to 1 1/2 courses +Math Assessment Test students may graduate in the four semester program or continue on and graduate after completing the additional courses set out in semesters five (5) and six (6)**

*****New Program Semesters 1 to 4 as shown. The courses offered in semesters five and six included more advanced accounting courses and also place an emphasis on Finance and Computer Applications. Successful graduates will receive additional credits towards receiving their professional designation as described on previous page.**

Semester 5	Credits
Intermediate Accounting 3 *Pre-Req:* 223-313 Inter. Acct. 2	6
228-715 Income Tax 2 *Pre-Req:* 228-712 Income Tax 1	4
234-582 Personal Computing 2 *Pre-Req:* 234-581 Personal Computing 1	4
223-715 Financial Controllorship 1 *Pre-Req:* 223-313 Intermediate Accounting 2	4
227-410 Internal Auditing *Pre-Req:* 223-313 Intermediate Accounting 2	4

Semester 6	Credits
Auditing 2 *Pre-Req:* 227-410 Auditing 1	4
Computer Accounting *Pre-Req:* 234-580 Small Business Computer Applications	4

Accountancy Diploma* (cont'd.)**

223-725 Financial Controllorship 2 *Pre-Req:* 223-715 Financial Controllorship 1	4
281-110 Quantitative Analysis 1 *Pre-Req:* 281-010 Business Mathematics	4
General Studies	3

An Introduction to Management Studies

The Management Studies Diploma Programs at Humber College provides the student with a thorough background in all aspects of basic management training. In line with our goal of meeting the needs of the student, we have adopted what is referred to as the 'through-way option' concept. This concept provides the student with the highest degree of flexibility in choosing courses appropriate to individual career goals.

The Business Administration Diploma Program (36 courses, three years, six semesters) offers the student the opportunity to study in depth, each of the business subject areas. The various program options also allow the student to study a particular area of interest in detail.

The General Business Diploma Program (25 courses, two years, four semesters) offers the student the opportunity to study each of the business subject areas, but with less intensity. The program also allows the student to study a particular area of interest, according to the option chosen.

In General Business or Business Administration students take a common first year curriculum that allows them relative ease in making program changes. To assist in this process, course and career coordinators are available.

The following highlights the flexibility of the program:

1. Students have the opportunity of choosing a specialized subject and career area.

2. The student may enter at higher levels than first semester, upon receiving advanced standing for courses from Grade 13 or another college.

Business Programs in the French Language

Many employment opportunities are available for the Business graduate with bilingual language skills. We are able to offer students two program offerings to study part of their program in the French language.

I. General Business - Office Systems Operation

Semester 1 and Semester 2 will be conducted in the English language with the option of some General Studies courses in the French language.

Semesters 3 and 4 will be conducted in the French language. Please see the La Bureautique program for the course curriculum, pg. xx. A diploma will be offered to those students completing the four semester program.

II. Business Administration

We are making preliminary arrangements with a college in Quebec for a possible exchange program for our French speaking students. Students who have prepared for this exchange and have sufficient French language skills will spend the fifth semester of the program studying in Quebec. Financial assistance will be available for this exchange.

Some course work in the French language will be offered during the first four semesters at Humber.

Un Introduction Aux Études En Gestion

Techniques Administratives En Français

Les possibilités d'embauche pour les diplômés en administration sont bonnes pour les personnes bilingues. Nous offrons deux programmes dans lesquels des cours sont enseignés en langue française.

I. General Business - Office Systems Operation/La Bureautique

Les deux premières sessions sont données en anglais. Des complémentaires peuvent être offertes en français. La troisième et la quatrième sessions seront offertes en français. Ce sont les cours du programme LA BUREAUTIQUE qui constituent les sessions 3 et 4 de ce nouveau programme (Voir programme LA BUREAUTIQUE). Un diplôme sera décerné aux finissants de ce programme.

II. Business Administration

Le Québec et l'Ontario ont un programme d'échange d'étudiants au niveau post-secondaire. Humber et Sainte-Foy en sont aux pourparlers préliminaires afin d'assurer à des étudiants des deux provinces la possibilité de compléter leur cinquième session en techniques administratives dans la province qui n'est pas la leur.

Le financement du projet est sous la responsabilité des deux provinces.

Les quatre prèmieres sessions du programme à Humber vont donner aux participants la possibilité de développer leurs acquisitions au niveau de la langue.

PART-TIME STUDIES

The Management Studies Department offers several management certificates in the evening. A student may choose any of the following areas of study.

Business Administration Certificate - 15 courses

General Business Certificate - 12 courses

Business Management Certificate - 8 courses

Operations Management Certificate - 8 courses

Personnel Management Certificate - 8 courses

These certificate programs would be of interest to people currently within the industry or for the more mature person wishing to update their business skills and knowledge on a part-time basis.

For further information on registration, time offered, etc. please consult the Continuous Learning Inroads brochure, or call 675-5016 or 252-5571.

Business Administration Diploma*

North and Lakeshore Campuses

Six Semesters Beginning September/January

This diploma program provides students with practical skills and comprehensive knowledge of all basic business functions, such as: accounting, human resource management, marketing and computer usage.

North Campus Options

Operations Management

Human Resources Management

Marketing Administration

Regular Option

Lakeshore Campus Options

Microsystems Management

Regular Option

- These options may be available via a co-op format

Business Administration Diploma* (cont'd.)

Office Systems Management
Microcomputer Business Management
Financial Services
Small Business Management & Development

At the date of publication, the curricula for the above 4 options were unavailable. For more information please call the Business Department at 252-5571.

Students may select their option after completion of Semester 2.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent, or mature student status
- grade 12 English, general level
- grade 12 business and consumers mathematics, general level

Job Opportunities

Three-year Business Administration graduates are well received by the business community. Graduates normally accept employment in entry-level positions in general management, accounting, finance, computer-related environments, sales in industry, areas related to production, distribution and inventory control, and retail sales, as well as junior positions in advertising and marketing.

Curriculum

Semester 1	Credits
251-020 Personnel	3
241-010 Marketing 1	4
221-011 Intro. to Accounting 1	4
926-121 Micro Economics	3
233-035 Elements of Information Systems	4
Communications 1	4

Semester 2	Credits
254-040 Elements of Law 1	3
281-010 Business Mathematics	4
241-110 Marketing 2 *Pre-Req:* 241-010 Marketing 1	4
221-111 Intro. to Accounting 2 *Pre-Req:* 221-011 Intro. to Accounting 1	4
926-221 Macroeconomics	3
Communication 2 *Pre-Req:* 941-102 Communications 1	4

***Math Assessment Test score of 65% or higher OR Basic Business Math 281-001 with 60% or higher**

North and Lakeshore Campuses Regular Option

This option allows for a higher concentration in Economics studies, as well as for a degree of choice with four business electives in semesters 4 and 5.

Curriculum

Semester 3	Credits
223-212 Managerial Accounting *Pre-Req:* 221-111 Intro. to Accounting 2	4
251-120 Organizational Management 1 *Pre-Req:* 251-020 Personnel	3
234-581 Personal Computing 1 *Pre-Req:* 233-025 Introduction to Information Systems	3
283-110 Business Statistics *Pre-Req:* 281-010 Business Mathematics	4
General Studies	3
Plus one of:	
926-301 International Economics *Pre-Req:* 926-221 Macroeconomics	4
926-302 Money, Banking & Finance *Pre-Req:* 926-221 Macroeconomics	4
926-303 Economic Development *Pre-Req:* 926-221 Macroeconomics	4

Semester 4	Credits
251-220 Organizational Management 2 *Pre-Req:* 251-120 Organizational Management 1	3
233-170 Elements of Systems *Pre-Req:* 233-035 Elements of Information Systems	4
252-010 Manufacturing Operations *Pre-Req:* 281-010 Business Mathematics	4
Business Elective	4
General Studies	3
Plus one of:	
926-301 International Economics *Pre-Req:* 926-221 Macroeconomics	4
926-302 Money, Banking & Finance *Pre-Req:* 926-221 Macroeconomics	4
926-303 Economic Development *Pre-Req:* 926-221 Macroeconomics	4

Semester 5	Credits
252-310 Business Policy 1 *Pre-Req:* 223-212 Managerial Accounting	4
281-210 Quantitative Analysis 2 *Pre-Req:* 283-110 Business Statistics	4
General Studies	3
3 Business Electives	12

Semester 6	Credits
252-510 Business Policy 2 *Pre-Req:* 252-310 Business Policy 1, 223-212 Managerial Accounting	4
253-810 Personnel Mgmt. & Development *Pre-Req:* 251-220 Organizational Management 2	4
223-713 Corporate Finance *Pre-Req:* 223-212 Managerial Accounting, 223-214 Intermediate Accounting 1	4

Business Administration Diploma* (cont'd.)

281-110 Quantitative Analysis 1 *Pre-Req:* 281-010 Business Mathematics	4
241-811 Advanced Marketing Admin. *Pre-Req:* 223-212 Managerial Accounting, 281-210 Quantitative Analysis 2, 241-110 Marketing 2	4
General Studies	3

North Campus Marketing Administration Option

This option will enable the Business Administration student to acquire specific background in the consumer marketing field. Basic training in marketing strategies will be provided in the early semesters. Training in advanced theories is scheduled for the final year. The student will be able to choose from four broad areas of specialization. These include the areas of marketing research, advertising and sales, marketing logistics and retail operations.

Curriculum

Semester 3	Credits
283-110 Business Statistics *Pre-Req:* 281-010 Business Mathematics	4
223-212 Managerial Accounting *Pre-Req:* 221-111 Intro. to Accounting 2	4
251-120 Organizational Management 1 *Pre-Req:* 251-020 Personnel	3
234-581 Personal Computing 1 *Pre-Req:* 233-025 Introduction to Information Systems	3
243-117 Advertising 1 *Pre-Req:* 241-010 Marketing 1	4
General Studies	3

Semester 4	Credits
233-170 Elements of Systems *Pre-Req:* 233-035 Elements of Information Systems	4
251-220 Organizational Management 2 *Pre-Req:* 251-120 Organizational Management 1	3
241-114 Marketing Research 1 *Pre-Req:* 241-010 Marketing 1	4
252-010 Manufacturing Operations *Pre-Req:* 281-010 Business Mathematics	4
2 General Studies	6

Semester 5	Credits
245-016 Professional Selling 2	4
252-310 Business Policy 1 *Pre-Req:* 223-212 Managerial Accounting	4
281-210 Quantitative Analysis 2 *Pre-Req:* 281-010 Business Mathematics, 283-110 Business Statistics	4
241-211 Marketing Research 2 *Pre-Req:* 241-114 Marketing Research 1	4
OR	
241-710 Physical Distribution *Pre-Req:* 241-010 Marketing 1	4
247-114 Retailing 1 *Pre-Req:* 241-010 Marketing 1	4
OR	
243-217 Advertising 2 *Pre-Req:* 243-117 Advertising 1	4
General Studies	3

Semester 6	Credits
233-275 Computer Applic. in Marketing *Pre-Req:* 233-170 Elements of Systems	4
241-811 Advanced Marketing Admin. *Pre-Req:* 223-212 Managerial Accounting, 281-210 Quantitative Analysis 2, 241-110 Marketing 2, 241-114 Marketing Research 1	4
252-510 Business Policy 2 *Pre-Req:* 252-310 Business Policy 1, 223-212 Managerial Accounting	4
253-810 Personnel Mgmt. & Development *Pre-Req:* 251-220 Organizational Management 2	4
223-713 Corporate Finance *Pre-Req:* 223-212 Managerial Accounting, 223-214 Intermediate Accounting 1	4
241-812 Export Marketing *Pre-Req:* 241-110 Marketing 2	4
OR	
245-110 Sales Management	4
OR	
247-115 Retailing 2 *Pre-Req:* 247-114 Retailing 1	4
OR	
241-113 Marketing of Microcomputers *Pre-Req:* 241-010 Marketing 1	4

North Campus Human Resource Management Option

Curriculum

Semester 3	Credits
223-212 Managerial Accounting *Pre-Req:* 221-111 Intro. to Accounting 2	4
251-120 Organizational Management 1 *Pre-Req:* 251-020 Personnel	3
234-581 Personal Computing 1 *Pre-Req:* 233-025 Introduction to Information Systems	3
283-110 Business Statistics *Pre-Req:* 281-010 Business Mathematics	4
253-113 Elements of Salary Compensation *Pre-Req:* 251-020 Personnel	4
1 General Studies	3

Business Administration Diploma* (cont'd.)

Semester 4	Credits
251-220 Organizational Management 2 *Pre-Req:* 251-120 Organizational Management 1	3
223-170 Elements of Systems *Pre-Req:* 233-035 Elements of Information Systems	4
252-010 Manufacturing Operations *Pre-Req:* 281-010 Business Mathematics	4
233-042 Human Resources Computer Applications *Pre-Req:* 251-020 Personnel	4
253-114 Elements of Pension Plans & Employee Benefits *Pre-Req:* 251-020 Personnel	4
1 General Studies	3

Semester 5	Credits
252-310 Business Policy 1 *Pre-Req:* 223-212 Managerial Accounting	4
281-110 Quantitative Analysis 1 *Pre-Req:* 281-010 Business Mathematics	4
253-111 Labour Relations *Pre-Req:* 251-020 Personnel	4
253-116 Occupational Health and Safety *Pre-Req:* 251-020 Personnel	4
251-022 Interviewing Techniques *Pre-Req:* 251-020 Personnel	4
1 General Studies	3

Semester 6	Credits
252-510 Business Policy 2 *Pre-Req:* 252-310 Business Policy 1	4
253-810 Personnel Mgmt. & Development *Pre-Req:* 251-220 Organizational Management 2	4
223-713 Corporate Finance *Pre-Req:* 223-212 Managerial Accounting, 223-214 Intermediate Accounting 1	4
281-210 Quantitative Analysis 2 *Pre-Req:* 281-010 Business Mathematics, 283-110 Business Statistics	4
241-811 Advanced Marketing Admin. *Pre-Req:* 223-212 Managerial Accounting, 281-210 Quantitative Analysis 2, 241-110 Marketing 2	4
1 General Studies	3

North Campus Operations Management Option

In order to respond to the need for highly-qualified graduates in the manufacturing community, the Operations Management Option has been structured to allow the Business Administration Graduate to specialize in such important areas as methods improvement, purchasing, production and inventory control, work measurement and physical distribution. This option also provides the graduate with management-related courses necessary for employment in manufacturing companies, service companies, or distribution companies.

Curriculum

Semester 3	Credits
223-212 Managerial Accounting *Pre-Req:* 221-111 Intro. to Accounting 2	4
251-120 Organizational Management 1 *Pre-Req:* 251-020 Personnel	3
234-581 Personal Computing 1 *Pre-Req:* 233-025 Introduction to Information Systems	3
283-110 Business Statistics *Pre-Req:* 281-010 Business Mathematics	4
252-010 Manufacturing Operations *Pre-Req:* 281-010 Business Mathematics	4
General Studies	3

Semester 4	Credits
251-220 Organizational Management 2 *Pre-Req:* 251-120 Organizational Management 1	3
233-170 Elements of Systems *Pre-Req:* 233-035 Elements of Information Systems	4
291-015 Methods Improvement *Pre-Req:* 252-010 Manufacturing Operations	4
281-110 Quantitative Analysis 1 *Pre-Req:* 281-010 Business Mathematics	4
291-010 Principles of Purchasing	4
1 General Studies	3

Semester 5	Credits
252-310 Business Policy 1 *Pre-Req:* 223-212 Managerial Accounting	4
291-016 Work Measurement *Pre-Req:* 252-010 Manufacturing Operations	4
291-011 Production Inventory & Management *Pre-Req:* 281-010 Business Mathematics	4
241-710 Physical Distribution *Pre-Req:* 241-010 Marketing 1	4
281-210 Quantitative Analysis 2 *Pre-Req:* 281-010 Business Mathematics, 283-110 Business Statistics	4
1 General Studies	3

Semester 6	Credits
252-510 Business Policy 2 *Pre-Req:* 252-310 Business Policy 1, 223-212 Managerial Accounting	4
253-810 Personnel Mgmt. & Development *Pre-Req:* 251-220 Organizational Management 2	4
241-811 Advanced Marketing Admin. *Pre-Req:* 223-212 Managerial Accounting, 281-210 Quantitative Analysis 2, 241-110 Marketing 2	4

Business Administration Diploma* (cont'd.)

223-713 Corporate Finance *Pre-Req:* 223-212 Managerial Accounting, 223-214 Intermediate Accounting 1	4
291-014 Facilities Planning *Pre-Req:* 291-011 Production Inventory & Management	4
1 General Studies	3

Lakeshore Campus Microsystems Management Option

To meet the needs of business for microcomputer-oriented Business Administration graduates, the Microsystems Management Option has been developed.

Graduates of this option will have applied their knowledge of accounting, inventory control, scheduling, etc. to microcomputer application.

They will learn to design and program business software and customize commercial software to specific application. They will learn to use various types of microcomputers and peripheral hardware. The Business Administration Program is adjusted by replacing eight business courses with the following microsystem courses:

Curriculum

Semester	Credits
233-045 Micro Fundamentals	4
231-045 Programming 1, Micro Co-Req: 233-035 Elements of Information Systems	4
233-147 Micro Systems Analysis 1 *Pre-Req:* 231-045 Programming 1, Micro, 233-035 Elements of Information Systems	4
231-246 Comparative Languages 1 *Pre-Req:* 231-045 Programming 1, Micro	4
233-145 Automated Office Management *Pre-Req:* 233-045 Micro Fundamentals	4
233-347 Micro Applications *Pre-Req:* 231-246 Comparative Languages 1, 233-147 Micro Systems Analysis 1	4
233-349 Data Base Management Systems 1 *Pre-Req:* 231-045 Programming 1, Micro	4
233-350 Data Base Management 2 *Pre-Req:* 233-349 Data Base Management Systems 1, 231-246 Comparative Languages 1	4

Business Administration — Enriched Program

Six semesters

In the Fall of 1988 we will be offering a limited number of seats in an *enriched* Business Administration program.

This program will have the same requirements as our regular Business Administration program but will also require that students have an average of over 75% in their Grade 12 courses (or equivalent on the Mature Student Test for applicants nineteen and over).

This program will cover the same course material as the regular Business Administration program but it will be taken over a slightly shorter period of time each semester.

This will allow for at least *two weeks* in each semester to be devoted to:

- field trips to industries, government agencies, the stock exchange, etc.
- field work experience with companies, service industries and non profit organizations.
- French programming opportunities including exchange with Community Colleges in Quebec.
- special tours, guest lectures, etc.

Please indicate Business Administration — ENRICHED PROGRAM on your application if you would like to be considered for this exciting new opportunity.

General Business Diploma

North and Lakeshore Campuses

Four semesters beginning September.

The General Business program offers students a business education with emphasis on the development of practical skills for employment in entry-level jobs within a business environment.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- grade 12 English, general level
- grade 12 business and consumers mathematics, general level

Curriculum

All options follow a common curriculum in the first year (two semesters) of the program except where noted (*):

Semester 1	Credits
251-020 Personnel	3

General Business Diploma (cont'd.)

241-010 Marketing 1	4
254-040 Elements of Law 1	3
221-011 Intro. to Accounting 1	4
926-121 Micro Economics	3
General Studies	3
Communications 1	4

Semester 2	Credits
251-120 Organizational Management 1 *Pre-Req:* 251-020 Personnel	3
281-010 Business Mathematics	4
233-035 Elements of Information Systems	4
Communications 2 *Pre-Req:* 941-102 Communications 1	4
2 General Studies*	6

After semester two, students choose a specific area of study such as the Business Management option or other approved specialized options.

Business Management Option

This option offers graduates the possibility of supervisory and management positions in business and industry. Entry-level jobs are initially at a junior level. Students may wish to take this option to obtain a general management background tailoring the program by the choice of electives.

Curriculum

Semester 3	Credits
251-220 Organizational Management 2 *Pre-Req:* 251-120 Organizational Management 1	3
283-110 Business Statistics *Pre-Req:* 281-010 Business Mathematics	4
252-010 Manufacturing Operations *Pre-Req:* 281-010 Business Mathematics	4
233-170 Elements of Systems *Pre-Req:* 233-035 Elements of Information Systems	4
221-111 Intro. to Accounting 2 *Pre-Req:* 221-011 Intro. to Accounting 1	4
General Studies	3

Semester 4	Credits
241-110 Marketing 2 *Pre-Req:* 241-010 Marketing 1	4
234-581 Personal Computing 1 *Pre-Req:* 233-025 Introduction to Information Systems	3
252-412 Organizational Communications *Pre-Req:* 251-120 Organizational Management 1	4
926-221 Macroeconomics	3
2 Business Electives	8

Business Electives	Credits
251-011 Small Business Management *Pre-Req:* 251-020 Personnel	4
252-412 Organizational Communications *Pre-Req:* 251-120 Organizational Management 1	4
291-010 Principles of Purchasing	4
253-117 Elements of Salary Compensation *Pre-Req:* 251-020 Personnel	4
253-111 Labour Relations *Pre-Req:* 251-020 Personnel	4
281-110 Quantitative Analysis 1 *Pre-Req:* 281-010 Business Mathematics	4
233-042 Human Resources Computer Applications *Pre-Req:* 251-020 Personnel	4

Business Diploma Elective courses are offered in 3rd, 4th and 5th semesters if sufficient demand exists.

Human Resource Post-Diploma Program

In response to the need for professional course and program preparation to gain entry into the field of Human Resource Management, a new one-year full-time program has been developed. This specialized program will be available to university graduates, college graduates and mature students with two to five years HRM or related business experience. This program will provide an opportunity for students to develop the knowledge and skills necessary to pursue an effective career in Human Resource Management. Field placement will be an integral part of the program.

Curriculum

Semester 1	Credits
251-020 Personnel	3
251-120 Organizational Management 1	3
253-117 Elements of Salary Compensation	4
253-114 Elements of Pension Plans & Employee Benefits	4
233-042 Human Resources Computer Applications	4
283-110 Business Statistics	4

Semester 2	Credits
253-810 Personnel Mgmt. & Development	4
251-022 Interviewing Techniques	4
251-220 Organizational Management 2	3
253-116 Occupational Health and Safety	4
253-111 Labour Relations	4
Finance and Accounting	4

Please note the above Program is pending approval.

General Business Diploma (cont'd.)

Approved Specialized Options

After completing required courses, students may wish to choose their own course options, rather than those listed. With approval of a Chairman, and guidance of a coordinator, they may structure a tailored program to meet specific career goals. This selection may be made from the wide variety of credit courses offered by the College.

Law Clerk Diploma **

North Campus

Law Clerk Diploma Program

Graduates are employed by organizations such as large legal firms, government departments and their agencies, life and general insurance companies and trust companies. Their duties generally require them to perform tasks with some legal complexity without requiring the extensive training of a lawyer, for example, title searches, conveyancing, document preparation, real estate closings and claims adjusting.

Curriculum

Semester 1		Credits
251-020	Personnel	3
254-040	Elements of Law 1	3
221-011	Intro. to Accounting 1	4
266-052	Basic Keyboarding	3
	Communications 1	4
	General Studies	3

Semester 2		Credits
233-035	Elements of Information Systems	4
254-030	Commercial Law *Pre-Req:* 254-040 Elements of Law 1	4
258-020	Basic General Insurance *Pre-Req:* 254-040 Elements of Law 1	4
	Communications 2	4
	General Studies	3

Semester 3		Credits
254-122	Real Estate 1 *Pre-Req:* 254-040 Elements of Law 1	4
254-126	Family Law *Pre-Req:* 254-040 Elements of Law 1	4
001-003	Court and Tribunal Procedures 1	4
	Insurance Claims Procedures	4
251-120	Organizational Management 1 *Pre-Req:* 251-020 Personnel	3
	The Law Clerk Principles *Pre-Req:* 254-040 Elements of Law 1	4
	General Studies	3

Semester 4		Credits
254-123	Real Estate 2 *Pre-Req:* 254-122 Real Estate 1	4
254-124	Wills & Intestate Succession *Pre-Req:* 254-040 Elements of Law 1	4
254-129	Criminal Litigation *Pre-Req:* 254-128 Court Procedures	4
001-004	Court and Tribunal Procedures 2	4
	Office Management	3
	General Studies	3

The above program is a General Business Modification - pending approval.

Computer Information — 2 or 3 year program (Regular or Co-op Option available)

North Campus

Regular Option

Six semesters beginning September. (Optional graduation after 4 semesters)

(Regular option or Information Sytems Administration option. Co-op format also available.)

To meet the increased technical demands, growth and widespread use of computers in business, and the corresponding need for skilled graduates in this profession, Humber College is offering a three-year Computer Information Systems Program.

Each year of this program offers progressively more professionally oriented courses.

Included in the curriculum are courses on the major computer languages: BASIC, COBOL and 4th Generation Languages, personal computer applications, systems analysis and design, and advanced topics relating to data base, communications networks, systems audit and security, and systems structure and management. Students wishing to graduate after four semesters must inform their coordinator during third semester.

Co-op Format (Eight Semesters)

Students who maintain a 70% average may quality for the co-op format which begins at the end of semester 4. It offers a co-op work term between semesters 4 and 5 and again between 5 and 6.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- grade 12 English, general level
- grade 12 business and consumers mathematics, general level
- no previous business experience or courses required

Computer Information — 2 or 3 year program (Regular or Co-op Option available) (cont'd.)

Job Opportunities

Graduates of this program will be able to enter the demanding and highly dynamic area of information systems in a wide range of modern business environments. They will be able to progress in such careers as: computer operations, programming, systems analysis and design, or eventually into information system management.

Graduates who choose the two year diploma should be able to function either as a junior programmer or in any other capacity where a knowledge of small and/or large computers is a requirement, such as, a familiarity with user application software.

Curriculum

Semester 1	Credits
233-035 Elements of Information Systems	4
281-010 Business Mathematics	4
241-010 Marketing 1	4
221-012 Accounting Concepts 1	4
251-020 Personnel	3
Communications 1	4
General Studies	3

Semester 2	Credits
231-031 Program Design*	2
231-151 Programming Fundamentals	4
251-120 Organizational Management 1 *Pre-Req:* 251-020 Personnel	3
221-112 Accounting Concepts 2 *Pre-Req:* 221-012 Accounting Concepts 1	4
Communications 2	4
General Studies	3

***Must be taken with or after Programming Fundamentals, but not before. **A math assessment test is required before the course begins.**

Semester 3	Credits
231-710 Cobol 1 *Pre-Req:* 231-151 Programming Fundamentals, 231-031 Program Design*	4
234-270 System Control Functions *Pre-Req:* 233-035 Elements of Information Systems	4
251-220 Organizational Management 2 *Pre-Req:* 251-120 Organizational Management 1	3
254-040 Elements of Law 1	3
232-170 Intro to Systems Analysis 1 *Pre-Req:* 233-035 Elements of Information Systems	4
234-581 Personal Computing 1 *Pre-Req:* 233-025 Introduction to Information Systems	3
General Studies	3

Semester 4	Credits
283-110 Business Statistics *Pre-Req:* 281-010 Business Mathematics	4
231-410 Cobol 2 *Pre-Req:* 231-710 Cobol 1	4
232-810 Data Base *Pre-Req:* 231-710 Cobol 1	4
232-270 Intro. to Systems Analysis 2 *Pre-Req:* 232-170 Intro to Systems Analysis 1	4
234-582 Personal Computing 2 *Pre-Req:* 234-581 Personal Computing 1	4
926-121 Micro Economics	3
*****Footnote: Students choosing the two year program must take a general studies elective instead of micro economics in their fourth semester.**	
231-300 Co-op Work Term (for students qualifying for and choosing the co-op format)	4

Semester 5	Credits
231-415 4th Generation Language *Pre-Req:* 231-710 Cobol 1	4
232-572 Systems Structure and Mgmt. *Pre-Req:* 232-270 Intro. to Systems Analysis 2	4
232-373 Structured Systems Analysis *Pre-Req:* 232-270 Intro. to Systems Analysis 2	4
232-371 Comparative Systems *Pre-Req:* 232-270 Intro. to Systems Analysis 2	4
232-472 Project Management *Pre-Req:* 232-270 Intro. to Systems Analysis 2	4
252-412 Organizational Communications *Pre-Req:* 251-120 Organizational Management 1	4
231-500 Co-op Work Term	4

Semester 6	Credits
231-552 Applied Programming Methodology *Pre-Req:* 231-410 Cobol 2	4
234-470 Network Design and Architecture *Pre-Req:* 233-035 Elements of Information Systems	4
232-815 Data Base Admin. and Design *Pre-Req:* 232-810 Data Base	4
232-573 System Audit, Control and Security *Pre-Req:* 232-270 Intro. to Systems Analysis 2, 221-012 Accounting Concepts 1	4
231-291 Assembler 1 *Pre-Req:* 231-151 Programming Fundamentals	4
General Studies	3

Information Systems Administration Option

In response to the current competitive environment, business, marketing and accounting managers are turning to computer information systems to improve both the efficiency and effectiveness of the firm's operation. Moreover, information systems' effectiveness depends not only on the computer specialist, but on the ability of managers and

Computer Information — 2 or 3 year program (Regular or Co-op Option available) (cont'd.)

users to understand its implication and effectively manage and control its implementation, and once implemented, the management of its information resources. The Management Systems option of the Computer Information Systems program is designed to enhance the student's understanding of this area and enable him/her to serve as an effective interface between the information systems function and accounting, marketing and administration functions in a mainframe and/or personal computer environment.

Curriculum

Semester 1 & 2 - Same as Regular Option

Semester 3	Credits
232-170 Intro to Systems Analysis 1 *Pre-Req:* 233-035 Elements of Information Systems	4
254-040 Elements of Law 1	3
241-110 Marketing 2 *Pre-Req:* 241-010 Marketing 1	4
283-110 Business Statistics *Pre-Req:* 281-010 Business Mathematics	4
234-581 Personal Computing 1 *Pre-Req:* 233-025 Introduction to Information Systems	3
926-121 Micro Economics	3
General Studies	3

Semester 4	Credits
232-270 Intro. to Systems Analysis 2 *Pre-Req:* 232-170 Intro to Systems Analysis 1	4
231-710 Cobol 1 *Pre-Req:* 231-151 Programming Fundamentals, 231-031 Program Design*	4
223-212 Managerial Accounting *Pre-Req:* 221-111 Intro. to Accounting 2	4
251-220 Organizational Management 2 *Pre-Req:* 251-120 Organizational Management 1	3
234-582 Personal Computing 2 *Pre-Req:* 234-581 Personal Computing 1	4
241-810 Marketing Admin. *Pre-Req:* 241-110 Marketing 2	4

Semester 5	Credits
234-470 Network Design and Architecture *Pre-Req:* 233-035 Elements of Information Systems	4
232-572 Systems Structure and Mgmt. *Pre-Req:* 232-270 Intro. to Systems Analysis 2	4
232-472 Project Management *Pre-Req:* 232-270 Intro. to Systems Analysis 2	4
252-010 Manufacturing Operations *Pre-Req:* 281-010 Business Mathematics	4
252-310 Business Policy 1 *Pre-Req:* 223-212 Managerial Accounting	4
General Studies	3

Semester 6	Credits
232-373 Structured Systems Analysis *Pre-Req:* 232-270 Intro. to Systems Analysis 2	4
231-415 4th Generation Language *Pre-Req:* 231-710 Cobol 1	4
233-053 Local Area Networks *Pre-Req:* 234-470 Network Design and Architecture	4
232-573 System Audit, Control and Security *Pre-Req:* 232-270 Intro. to Systems Analysis 2, 221-012 Accounting Concepts 1	4
252-510 Business Policy 2 *Pre-Req:* 252-310 Business Policy 1, 223-212 Managerial Accounting	4
253-810 Personnel Mgmt. & Development *Pre-Req:* 251-220 Organizational Management 2	4

Computer Programming (Regular or Co-op option available)

North Campus

Sixty-four weeks starting September, January and May

The successful, mature candidate will be a person with several years of business experience or one who is transferring from another college or university. For four academic semesters, the student in this program will undergo studies in computer programming, systems and related areas. These academic semesters are basically the same as the Computer Programming Co-op program and compare favourably with the three-year Computer Information Systems program.

The program starts three times per year (September, January and May) and if they wish, students can graduate at the end of four consecutive semesters without the normal summer semester break of most other programs.

A number of students in this program receive sponsorship from CEIC, but this still leaves a number of openings for other applicants to the program.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level or equivalent, or mature student status
- grade 12 English, general level
- grade 12 business and consumers mathematics, general level

Curriculum

Same as semesters 1, 2, 4 and 6 on the following page.

Computer Programming Co-op Diploma (Regular and Co-op Option)

North Campus

Six semesters beginning September or January

This program offers an educational opportunity in Computer Programming with a unique combination of academic training and 'on-the-job' experience. For four academic semesters the successful, mature candidate will undergo studies in computer programming, systems and related areas. These academic semesters are basically the same as the 64-week Computer Programming program and compare favourably with the three-year Computer Information Systems program.

During the Co-op program, students will alternate the academic semesters with two semesters of related work experience. During this time, successful students will be employed in the data processing field to become aware of the real-life business situation and prepare them for a career in this profession. The work term will also offer the student an understanding of the various computer-related career paths.

Since the work terms are an integral part of the program, they will be treated as academic credits with an assignment component.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status, plus two years of business experience
- grade 12 English, general level
- grade 12 business and consumers mathematics, general level

Job Opportunities

The program produces a graduate who enters the business community as a valuable member of an information-systems team, generally at the junior or maintenance programmer level. Opportunities for advancement in this field are excellent, particularly if additional courses are taken to maintain an edge on this exciting and changing field.

Curriculum

Semester 1		Credits
233-025	Introduction to Information Systems	4
231-151	Programming Fundamentals	4
231-031	Program Design*	2
221-012	Accounting Concepts 1	4
281-010	Business Mathematics	4
	Communications 1	4
	General Studies	3

*A Math assessment test is required before this course begins

Semester 2		Credits
231-710	Cobol 1 *Pre-Req:* 231-151 Programming Fundamentals, 231-031 Program Design*	4
232-170	Intro to Systems Analysis 1 *Pre-Req:* 233-035 Elements of Information Systems	4
234-270	System Control Functions *Pre-Req:* 233-035 Elements of Information Systems	4
221-112	Accounting Concepts 2 *Pre-Req:* 221-012 Accounting Concepts 1	4
251-020	Personnel	3
234-581	Personal Computing 1 *Pre-Req:* 233-025 Introduction to Information Systems	3
	General Studies	3

Semester 3		Credits
231-300	Co-op Work Term (for students qualifying for and choosing the co-op format)	4

Semester 4		Credits
231-410	Cobol 2 *Pre-Req:* 231-710 Cobol 1	4
232-810	Data Base *Pre-Req:* 231-710 Cobol 1	4
232-270	Intro. to Systems Analysis 2 *Pre-Req:* 232-170 Intro to Systems Analysis 1	4
283-110	Business Statistics *Pre-Req:* 281-010 Business Mathematics	4
	Communications 2	
	General Studies	4

Semester 5		Credits
231-500	Co-op Work Term	4

Semester 6		Credits
231-200	RPG 2 *Pre-Req:* 233-025 Introduction to Information Systems	4
234-582	Personal Computing 2 *Pre-Req:* 234-581 Personal Computing 1	4
234-470	Network Design and Architecture *Pre-Req:* 233-035 Elements of Information Systems	4
231-553	Assembler *Pre-Req:* 231-151 Programming Fundamentals	4
232-573	System Audit, Control and Security *Pre-Req:* 232-270 Intro. to Systems Analysis 2, 221-012 Accounting Concepts 1	4
232-815	Data Base Admin. and Design *Pre-Req:* 232-810 Data Base	4
231-552	Applied Programming Methodology *Pre-Req:* 231-410 Cobol 2	4

Systems Analyst

North Campus

Sixty four weeks starting September, January.

The successful mature candidate will be a person with several years experience or one who is transferring from another college or university. Because of the nature of the profession, individuals with strong logic capabilities, as well as good communication and interpersonal skills would have the greatest likelihood of success. Also, since the program is of an intense nature, those with a good academic record, and good study and working habits would be the most likely to meet the academic demands of the program. Those with a working background in computer programming may qualify for advanced standing.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivelent, or mature student status
- grade 12 English, general level
- grade 12 business and consumers mathematics, general level

Note: students will initially be registered in the Computer Programming program until the third semester

Curriculum

Semester 1 & 2 - same as Computer Programming

Semester 3	Credits
231-410 Cobol 2 *Pre-Req:* 231-710 Cobol 1	4
232-810 Data Base *Pre-Req:* 231-710 Cobol 1	4
232-270 Intro. to Systems Analysis 2 *Pre-Req:* 232-170 Intro to Systems Analysis 1	4
234-470 Network Design and Architecture *Pre-Req:* 233-035 Elements of Information Systems	4
283-110 Business Statistics *Pre-Req:* 281-010 Business Mathematics	4
Communications 2 *Pre-Req:* 941-102 Communications 1	4
General Studies	3

Semester 4	Credits
232-815 Data Base Admin. and Design *Pre-Req:* 232-810 Data Base	4
232-373 Structured Systems Analysis *Pre-Req:* 232-270 Intro. to Systems Analysis 2	4
232-572 Systems Structure and Mgmt. *Pre-Req:* 232-270 Intro. to Systems Analysis 2	4
232-472 Project Management *Pre-Req:* 232-270 Intro. to Systems Analysis 2	4
232-573 System Audit, Control and Security *Pre-Req:* 232-270 Intro. to Systems Analysis 2, 221-012 Accounting Concepts 1	4
231-415 4th Generation Language *Pre-Req:* 231-710 Cobol 1	4

Microcomputer Business Applications

Lakeshore Campus

Three semesters beginning September, January & May

This program will train students to operate a microcomputer in a business environment. Graduates will have a detailed knowledge of accounting practices, automated accounting, mailing lists, spreadsheets, word processing, and work scheduling. Not only will they be able to design and program their own business software but they will also be able to customize commercial products to suit the needs of their employers. They will learn about various types of microcomputers and the strengths and weaknesses of each. The use of the peripherals (disk drives, printers, modems, etc.) will be a part of the course. Language skills will enable them to communicate with their fellow workers and they will also have the ability to produce high quality documentation to be used with the computer programs. Word processing interfacing techniques, programming, and keyboarding will all form a part of the program.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- pre-tests for mature student applicants

Job Opportunities

Graduates working in a business office may be involved in microcomputer applications in payroll, general ledger, accounts payable, accounts receivable, invoices, mailing lists, inventory, word processing and work scheduling.

Possible employment opportunities include: customer support representative, junior microcomputer operator, programming and software support, instructor, marketing representative and sales representative, educational training.

Graduates are hired by small, medium and large firms including computer firms, retail and manufacturing businesses as well as government and service organizations. With some experience, you may wish to become a consultant in this rapidly changing field.

Curriculum

Semester 1	Credits
221-014 Principles of Accounting 1	4
231-045 Programming 1, Micro Co-Req: 233-035 Elements of Information Systems	4

Microcomputer Business Applications (cont'd.)

233-045	Micro Fundamentals	4
233-035	Elements of Information Systems	4
251-029	Canadian Business Methods	4
281-010	Business Mathematics	4
941-128	Business Report Writing 1	3

Semester 2		Credits
221-114	Principles of Accounting 2 *Pre-Req:* 221-014 Principles of Accounting 1	4
233-349	Data Base Management Systems 1 *Pre-Req:* 231-045 Programming 1, Micro	4
231-246	Comparative Languages 1 *Pre-Req:* 231-045 Programming 1, Micro	4
233-145	Automated Office Management *Pre-Req:* 233-045 Micro Fundamentals	4
233-146	Hardware/Software Systems *Pre-Req:* 231-045 Programming 1, Micro	4
233-147	Micro Systems Analysis 1 *Pre-Req:* 231-045 Programming 1, Micro, 233-035 Elements of Information Systems	4
941-129	Business Report Writing 2 *Pre-Req:* 941-128 Business Report Writing 1	3

Semester 3		Credits
231-247	Comparative Languages 2 *Pre-Req:* 231-246 Comparative Languages 1, 233-146 Hardware/Software Systems	4
233-246	Automated Accounting *Pre-Req:* 221-014 Principles of Accounting 1, 233-045 Micro Fundamentals	4
233-347	Micro Applications *Pre-Req:* 231-246 Comparative Languages 1, 233-147 Micro Systems Analysis 1	4
233-350	Data Base Management 2 *Pre-Req:* 233-349 Data Base Management Systems 1, 231-246 Comparative Languages 1	4
268-113	Data Communications *Pre-Req:* 233-035 Elements of Information Systems	4
283-110	Business Statistics *Pre-Req:* 281-010 Business Mathematics	4
941-126	Business Presentations	4
231-015	Job Search	1

Marketing Diploma

North Campus

Four semesters beginning September.

The aim of this program is to introduce students to the broad scope of marketing in today's consumer market. Emphasis is placed on the analysis of new product decisions, distribution, promotion, and pricing strategies and their administration in practice.

The program offers several specialization options through the choice of marketing electives. Initially, semesters one and two familiarize students with the basic state of the art. Semesters three and four offer the choice of a specific career option in the general marketing and merchandising areas. For further information, contact the Program Chairman. A common core of required business courses has been introduced in the marketing and management areas to make program transfer easier.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- grade 12 English, general level
- grade 12 business and consumers mathematics, general level

Job Opportunities

This program generally leads to retail and wholesale sales and general administrative marketing positions. Other entry jobs may include customer service, distribution or management trainee. If you need more specific information on the placement of our graduates, come to our Placement Office to research the job listings.

Curriculum

General Marketing Option

Semester 1		Credits
251-020	Personnel	3
241-010	Marketing 1	4
281-005	Mathematics for Marketing *Pre-Req:* 65% Math Assessment Test or 60% Basic Math	4
221-015	Accounting for Marketing	4
941-102	Communications 1 *Pre-Req:* 941-205 Introductory Communications	4
	General Studies	3

Semester 2		Credits
254-005	Business Law for Marketing	3
241-110	Marketing 2 *Pre-Req:* 241-010 Marketing 1	4
247-114	Retailing 1 *Pre-Req:* 241-010 Marketing 1	4
233-035	Elements of Information Systems	4

Marketing Diploma (cont'd.)

926-121 Micro Economics	3
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4
General Studies	

Semester 3	Credits
243-117 Advertising 1 *Pre-Req:* 241-010 Marketing 1	4
245-016 Professional Selling 2	4
251-120 Organizational Management 1 *Pre-Req:* 251-020 Personnel	3
241-114 Marketing Research 1 *Pre-Req:* 241-010 Marketing 1	4
234-581 Personal Computing 1 *Pre-Req:* 233-025 Introduction to Information Systems	3
General Studies	3

Semester 4	Credits
241-810 Marketing Admin. *Pre-Req:* 241-110 Marketing 2	4
251-220 Organizational Management 2 *Pre-Req:* 251-120 Organizational Management 1	3
3 Marketing Electives	12
General Studies	3

Merchandising Management Option

In the third and fourth semesters, students seeking a retail orientation will follow the curriculum outlined here. Retailers such as department stores and specialty shops are among Canada's largest employers.

Job Opportunities

Sales and management trainee opportunities in the merchandising and retail fields are some of the areas in which our graduates find employment.

Curriculum

Semester 1 & 2 - same as General Option

Semester 3	Credits
243-117 Advertising 1 *Pre-Req:* 241-010 Marketing 1	4
241-114 Marketing Research 1 *Pre-Req:* 241-010 Marketing 1	4
245-016 Professional Selling 2	4
251-120 Organizational Management 1 *Pre-Req:* 251-020 Personnel	3
247-015 Retailing 2 *Pre-Req:* 247-114 Retailing 1	4
General Studies	3

Semester 4	Credits
241-810 Marketing Admin. *Pre-Req:* 241-110 Marketing 2	4
251-220 Organizational Management 2 *Pre-Req:* 251-120 Organizational Management 1	3
234-581 Personal Computing 1 *Pre-Req:* 233-025 Introduction to Information Systems	3
241-710 Physical Distribution *Pre-Req:* 241-010 Marketing 1	4
243-112 Sales Promotion/Direct Mktg. *Pre-Req:* 241-010 Marketing 1	4
General Studies	3

Marketing Elective courses offered in the Fourth Semester:	Credits
241-710 Physical Distribution *Pre-Req:* 241-010 Marketing 1	4
243-112 Sales Promotion/Direct Mktg. *Pre-Req:* 241-010 Marketing 1	4
243-217 Advertising 2 *Pre-Req:* 243-117 Advertising 1	4
245-110 Sales Management	4
247-115 Retailing 2 *Pre-Req:* 247-114 Retailing 1	4
240-011 Starting a New Business *Pre-Req:* 241-110 Marketing 2	4
241-812 Export Marketing *Pre-Req:* 241-110 Marketing 2	4
241-113 Marketing of Microcomputers *Pre-Req:* 241-010 Marketing 1	4
245-115 Professional Selling 2 *Pre-Req:* 245-016 Professional Selling 2	4

Retail Management Diploma

North Campus

Four consecutive semesters beginning September

Retailing is an industry of continuous change, variety and excitement. It is fast moving, competitive, and at all times challenging. In many respects, retailing requires greater skills for survival and success than any other business. Successful retailers must learn to combine the rigid requirements of science with the creative aspects of art. Retail activities such as market research, inventory control and financial planning require the discipline of a science. Other activities such as personal selling, interior store design, advertising, merchandising and display demand creativity and innovative thinking.

The Retail Management Program is a unique program offered by Humber College

Retail Management Diploma (cont'd.)

created in cooperation with the Retail Council of Canada. It is specifically designed to train the student in current retail skills in the above areas, and to provide an opportunity to practice those newly-learned skills in paid on-the-job training with a suitable retail company.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- grade 12 business and consumers mathematics, general level
- completed interview sheet, retail skills test
- interview by member of the program faculty and representative from retail industry

Job Opportunities

At the entry level of retailing, the following positions can be obtained: management trainee, assistant buyer in speciality and chain stores, assistant in merchandise management, display or advertising.

Additional Costs

There may be relocation expenses involved, depending on placement, during the co-op period. Textbooks and supplies first year $175, second year $75, approximately.

Curriculum

The program will cover four consecutive semesters, each composed of an in-college theoretical portion, and a paid "on-the-job" unit in which course material will be applied to practical situations.

Semester 1		Credits
243-101	Orientation to Retailing	2
233-080	EDP Retail	3
243-105	Retail Math	4
243-104	Sales and Selling Skills	8
243-106	Retail Accounting	5
	Communications 1	4

Semester 2		Credits
243-202	Inventory Management Principles	6
243-107	Store Planning and Merchandising	5
243-108	Store Design	5
	Communications 1	4
	2 General Studies*	3

Semester 3		Credits
243-311	Visual Merchandising	6
243-312	Retail Advertising and Promotion	4
243-313	Selling/Sales Management	3
243-314	Buying Orientation	5
243-203	Retail Distribution Centres	3
	2 General Studies*	3

Semester 4		Credits
243-414	Retail Employee Relations	3
243-412	Portfolio Presentations	6
243-418	Advanced Retail Financial Strategies	3
243-416	Retail Supervision	3
243-417	Retail Law	2
243-419	Retail Computer Applications	3
	Communications 2	4
	General Studies (2)	3

Office Administration Programs (formerly Secretarial Arts)

North Campus

The Office Administration programs provide comprehensive training in the specialized skills, procedures and knowledge required to pursue careers as executive, legal and medical secretaries, administrative assistants, word processing and information management specialists. Students may select from five specialized program profiles. Each program is designed to provide the student with extensive practical experience in classrooms and labs equipped with a variety of automated office technology and through 'on-the-job' work placements with potential employers in each discipline.

Note: At the time of publication, the curriculum for Office Administration programs/courses is under review. Please contact the Program Coordinator for current information.

Advanced Standing:

Applicants with secondary school secretarial credits or with related work experience may, upon admission, apply for advanced standing in some Semester 1 Office Administration courses. Successful completion of an assessment in such courses may permit a student to complete their program of study in one less semester. Please contact the Program Coordinator for details.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- grade 12 English, general level
- grade 12 business and consumers mathematics, general level

Office Administration-Executive Diploma (formerly Executive Secretary Diploma)

North Campus

Four semesters beginning September and end of January

This program provides training in the secretarial and administrative responsibilities of an executive secretary or administrative assistant. Humber's curriculum is unique in that it provides 3 semesters of specialized training. Students will learn to handle a variety of responsibilities including:

- preparing correspondence, reports and documents from handwritten copy, shorthand and machine dictation on a typewriter, word processor and microcomputer
- scheduling appointments, screening visitors and telephone calls
- coordinating meetings, conferences and travel itineraries
- acting as liaison with clients and senior corporate executives
- anticipating, planning and carrying out routine functions of the executive in his/her absence.

Practical experience will be enhanced through work placements in corporate offices.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- grade 12 English, general level
- grade 12 business and consumers mathematics, general level

Job Opportunities

Graduates are offered widely varied and plentiful employment opportunities as secretaries, word processing operators and administrative assistants supporting managers and professionals in private and public corporations, and in government departments. Excellent career advancement potential exists for the experienced graduate including positions as executive secretary, administrative or executive assistant reporting to senior corporate management, or positions supervising and training secretarial and administrative support personnel.

Curriculum

Semester 1	Credits
266-215 Simulated Office Environment 1	8
262-005 Notetaking for Business	6
221-010 Elements of Accounting	4
941-205 Introductory Communications	4

Semester 2	Credits
261-269 Executive Office Simulations 1 *Pre-Req:* 262-215 Simulated Office Environment 1	8
262-768 Executive Shorthand 1 *Pre-Req:* 262-005 Notetaking for Business	4
268-018 Word Processing Fundamentals	4
941-102 Communications 1 *Pre-Req:* 941-205 Introductory Communications	4
General Studies	3

Semester 3	Credits
261-369 Executive Office Simulations 2 *Pre-Req:* 261-269 Executive Office Simulations 1	8
262-766 Executive Shorthand 2 *Pre-Req:* 266-768 Executive Shorthand 1	4
233-060 D.P. Office Systems	4
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4
General Studies	3

Semester 4	Credits
264-045 Executive Office Simulations 3 *Pre-Req:* 261-369 Executive Office Simulations 2, 262-766 Executive Shorthand 2	10
261-470 Office Administration Procedures	4
268-118 Word Processing Advanced *Pre-Req:* 268-018 Word Processing Fundamentals	4
2 General Studies	6

Office Administration-Legal Diploma (formerly Legal Secretary Diploma)

North Campus

Four semesters beginning September and end of January

This program provides training in the secretarial and administrative responsibilities of a legal secretary. Humber's curriculum is unique in that it provides 3 semesters of specialized training in the areas of real estate, civil litigation and corporate law. Students will learn to handle a variety of responsibilities including:

- reception duties
- scheduling appointments and meetings
- preparing correspondence, accounts, legal documents and memoranda from handwritten copy, shorthand or machine dictation on a typewriter, word processor and microcomputer
- administration of client files and records, lawyers' time records and accounting records
- administration of client files and records and lawyers' time records and accounting records
- handling travel arrangements
- serving, filing and registering legal documents and instruments

Practical experience will be enhanced through work placements with practising lawyers.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- grade 12 English, general level
- grade 12 business and consumers mathematics, general level

Job Opportunities

There is an excellent demand for graduates to work in law firms, legal departments

Office Administration-Legal Diploma (formerly Legal Secretary Diploma) (cont'd.)

of private industry and government, court offices and university faculties of law. Graduates are generally hired for junior legal secretary positions. With experience, it is possible to advance to senior positions involving administrative and/or supervisory duties. With additional legal training, an experienced senior legal secretary may attain a position as legal assistant or law clerk conducting legal research and drafting documents.

Curriculum

Semester 1	Credits
266-215 Simulated Office Environment 1	8
262-005 Notetaking for Business	6
221-010 Elements of Accounting	4
941-205 Introductory Communications	4

Semester 2	Credits
261-268 Legal Secretarial Procedures 3 *Pre-Req:* 261-257 Legal Secretarial Procedures 2	8
262-748 Legal Shorthand 1 *Pre-Req:* 262-005 Notetaking for Business	4
254-040 Elements of Law 1	3
941-102 Communications 1 *Pre-Req:* 941-205 Introductory Communications	4
General Studies	3

Semester 3	Credits
261-258 Legal Secretarial Procedures 2 *Pre-Req:* 261-268 Legal Secretarial Procedures 3	8
262-749 Legal Shorthand 2 *Pre-Req:* 262-748 Legal Shorthand 1	4
268-018 Word Processing Fundamentals	4
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4
General Studies	3

Semester 4	Credits
261-268 Legal Secretarial Procedures 3 *Pre-Req:* 261-257 Legal Secretarial Procedures 2	8
262-750 Legal Shorthand 3 *Pre-Req:* 262-749 Legal Shorthand 2	4
268-118 Word Processing Advanced *Pre-Req:* 268-018 Word Processing Fundamentals	4
2 General Studies	6

Office Administration-Medical Diploma (formerly Medical Secretary Diploma)

North Campus

Four semesters beginning September and end of January

This program provides training in the secretarial and administrative responsibilities of a medical secretary. Humber's curriculum is unique in that it provides 3 semesters of specialized training. Students will learn to handle a variety of responsibilities including:

- scheduling appointments
- reception duties
- preparing patient records, and maintaining up-to-date correspondence and clinical records using transcribing machines, typewriters, word processors and microcomputers
- processing health insurance claims
- financial recordkeeping
- purchasing office and clinical supplies and equipment.

In Semester 4, practical experience will be enhanced through a work placement in a medical facility one day per week.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- grade 12 English, general level
- grade 12 business and consumers mathematics, general level

Job Opportunities

A variety of health care facilities, government departments and agencies, pharmaceutical firms, university faculties of medicine and insurance companies offer excellent employment prospects. Graduates are hired as medical secretaries to physicians and paramedical personnel in the above-mentioned areas of medicine, and as admitting and ward clerks, medical transcriptions and department secretaries in hospitals. As experience is acquired, advancement to senior positions involving administrative and/or supervisory responsibility is possible. These include positions as medical secretary/administrative assistant to senior medical personnel, chiefs of hospital departments, and heads of university faculties of medicine; supervisors of medical secretaries and clinic office managers.

Curriculum

Semester 1	Credits
266-215 Simulated Office Environment 1	8
262-005 Notetaking for Business	6
221-010 Elements of Accounting	4
941-205 Introductory Communications	4

Semester 2	Credits
265-030 Medical Science 1	4
261-232 Medical Office Procedures 1 *Pre-Req:* 266-215 Simulated Office Environment 1	4

Office Administration-Medical Diploma (formerly Medical Secretary Diploma) (cont'd.)

264-030 Medical Machine Transcription 1 *Pre-Req:* 266-215 Simulated Office Environment 1	4
268-018 Word Processing Fundamentals	4
941-102 Communications 1 *Pre-Req:* 941-205 Introductory Communications	4
General Studies	3

Semester 3	Credits
265-130 Medical Science 2 *Pre-Req:* 265-030 Medical Science 1	4
261-332 Medical Office Procedures 2 *Pre-Req:* 261-232 Medical Office Procedures 1	4
264-031 Medical Machine Transcription 2 *Pre-Req:* 264-030 Medical Machine Transcription 1	4
268-118 Word Processing Advanced *Pre-Req:* 268-018 Word Processing Fundamentals	4
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4
759-103 First Aid & Accident Prevention	1
739-806 C.P.R. (Basic Life Support)	1
General Studies	3

Semester 4	Credits
265-230 Medical Science 3 *Pre-Req:* 265-130 Medical Science 2	4
261-432 Medical Administrative Procedures *Pre-Req:* 261-332 Medical Office Procedures 2	4
264-032 Medical Machine Transcription 3 *Pre-Req:* 264-031 Medical Machine Transcription 2	4
266-230 Medical Office Experience	1
233-060 D.P. Office Systems	4
2 General Studies	6

Office Administration-Office Systems Administration Diploma

North

Six semesters beginning September

This program has been designed to train students to be responsible to management for the intercommunication and interaction of a specific department within a large or complex organization, or to be an office administrator for a less structured company.

Admission Requirements

- Ontario Secondary School Graduation Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- grade 12 English, general level
- grade 12 business and consumers mathematics, general level

Job Opportunities

There is a demand for graduates with solid training in high technology requirements within the office. Emphasis in this program is on the development of organizational and management skills.

Curriculum

Semester 1	Credits
266-215 Simulated Office Environment 1	8
268-018 Word Processing Fundamentals	4
281-010 Business Mathematics	4
941-205 Introductory Communications	4
General Studies	3

Semester 2	Credits
266-220 Simulated Office Environment 2 *Pre-Req:* 266-215 Simulated Office Environment 1	4
233-060 D.P. Office Systems	4
268-118 Word Processing Advanced *Pre-Req:* 268-018 Word Processing Fundamentals	4
221-010 Elements of Accounting	4
941-102 Communications 1 *Pre-Req:* 941-205 Introductory Communications	4
General Studies	3

Semester 3	Credits
233-170 Elements of Systems *Pre-Req:* 233-035 Elements of Information Systems	4
268-218 Word Processing & Networking *Pre-Req:* 268-118 Word Processing Advanced	4
268-025 MathPac/Alphasort *Pre-Req:* 268-118 Word Processing Advanced	4
268-019 W.P. Machine Transcription *Pre-Req:* 266-220 Simulated Office Environment 2, 268-018 Word Processing Fundamentals	4
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4
General Studies	3

Semester 4	Credits
261-470 Office Administration Procedures	4
268-021 Telecommunications 1	4
268-027 Records & File Architecture *Pre-Req:* 268-218 Word Processing & Networking, 268-025 MathPac/Alphasort	4
251-020 Personnel	3
941-217 Communications 3 *Pre-Req:* 941-103 Communications 2	4
General Studies	3

Office Administration-Office Systems Administration Diploma (cont'd.)

Semester 5 Requirements: completion of subjects in previous 4 semesters or permission of Program Coordinator	Credits
253-113 Elements of Salary Compensation *Pre-Req:* 251-020 Personnel	4
241-010 Marketing 1	4
268-022 Telecommunications 2 *Pre-Req:* 268-021 Telecommunications 1	4
926-121 Micro Economics	3
2 Business Electives	6

Semester 6 Requirements: completion of subjects in previous 5 semesters or permission of Program Coordinator	Credits
253-111 Labour Relations *Pre-Req:* 251-020 Personnel	4
251-220 Organizational Management 2 *Pre-Req:* 251-120 Organizational Management 1	3
252-412 Organizational Communications *Pre-Req:* 251-120 Organizational Management 1	4
926-201 Macro Economics	3
2 Business Electives	6

Office Administration-Word Processing Supervisor Diploma

North Campus

Four semesters beginning September

This program provides training in the operation of word processing systems, the preparation of information for management decision making and the organization and supervision of a word processing centre. Students will learn to format and keyboard text onto video display terminals, store, retrieve, revise and assemble text using magnetic media and reproduce and distribute documents using sophisticated high-speed printers and telecommunication devices. Practical experience will be enhanced through work placements in corporate offices.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- grade 12 English, general level
- grade 12 business and consumers mathematics, general level

Job Opportunities

Word processing specialists are in demand in a wide cross-section of business and government offices. Graduates are generally hired as word processing operators and correspondence secretaries. With experience, it is possible to advance to supervisory positions involving selection, training and evaluation of information management personnel; monitoring workflow; quality control and productivity; analyzing needs; designing and implementing future systems; developing procedures manuals; budgeting and coordinating administrative support services throughout the organization.

Curriculum

Semester 1	Credits
266-215 Simulated Office Environment 1	8
268-018 Word Processing Fundamentals	4
281-010 Business Mathematics	4
941-205 Introductory Communications	4
General Studies	3

Semester 2	Credits
266-220 Simulated Office Environment 2 *Pre-Req:* 266-215 Simulated Office Environment 1	4
268-118 Word Processing Advanced *Pre-Req:* 268-018 Word Processing Fundamentals	4
233-060 D.P. Office Systems	4
221-010 Elements of Accounting	4
941-102 Communications 1 *Pre-Req:* 941-205 Introductory Communications	4
General Studies	3

Semester 3	Credits
268-218 Word Processing & Networking *Pre-Req:* 268-118 Word Processing Advanced	4
268-025 MathPac/Alphasort *Pre-Req:* 268-118 Word Processing Advanced	4
268-019 W.P. Machine Transcription *Pre-Req:* 266-220 Simulated Office Environment 2, 268-018 Word Processing Fundamentals	4
233-170 Elements of Systems *Pre-Req:* 233-035 Elements of Information Systems	4
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4
General Studies	3

Semester 4	Credits
261-470 Office Administration Procedures	4
268-021 Telecommunications 1	4
268-027 Records & File Architecture *Pre-Req:* 268-218 Word Processing & Networking, 268-025 MathPac/Alphasort	4
251-020 Personnel	3
941-217 Communications 3 *Pre-Req:* 941-103 Communications 2	4
General Studies	3

Course Descriptions

Accounting for Marketing 221-015

An introductory course intended specifically for students in Marketing. Accordingly, the course emphasizes the analytical application of concepts and principles and de-emphasizes the record-keeping aspects of accounting.

Accounting Concepts 1 221-012

This course assumes no accounting background on the part of the student. It covers the complete accounting cycle with emphasis on the conceptual as well as the procedural elements of the cycle. The course concludes with a chapter on accounting for cash.

Accounting Concepts 2 221-112

This course provides a detailed study of the accounting for the various items appearing on a balance sheet, their control and their effects upon related items of income and expense, including accounting differences for each type of business enterprise.

Advanced Marketing Admin. 241-811

This advanced course represents the final level in Humber's Marketing Program. It includes a Marketing Management simulation which offers an excellent vehicle to refine the many concepts acquired in earlier courses.

Advanced Retail Financial Strategies 243-418

Strategic Retail Marketing is both an art and a science. It moves a store into a position in the marketplace that serves the target customers better than the competition. Using a case study approach based on the students' placement company, the student will analyze their company's strategies in a variety of areas of retailing. Through a series of workbook exercises they will put together a major comprehensive strategy report.

Advertising 1 243-117

This course offers a basic overview of the Canadian advertising scene today. Beginning with an analysis of the several purposes of advertising, and continuing with an examination of the various media available, the students will then consider the steps required to plan, prepare and produce advertising messages. Emphasis will be placed on advertising's advantages and limitations as a component of the promotion mix, as well as the necessity for and the difficulties involved in evaluating its effectiveness.

Advertising 2 243-217

Here the student will delve more deeply into the generally accepted techniques used and problems faced by advertisers than the elements course permits. The student will prepare and analyse both print and broadcast messages. They will also be involved in the development of real simulated advertising plans, including budget breakdowns and media schedules. As well, there will be two major written assignments prepared by student-organized advertising agencies, plus reviews of books written by advertising "immortals".

Basic General Insurance 258-020

This course is based on the basic course of the Insurance Institute of Canada and is designed to give the Legal Assistant student a broad overview of the general business. While obtaining credit leading to a diploma at Humber, the student will gain recognition and a credit from the Insurance Institute of Canada, by writing two exams set by the Institute which will give the student an additional advantage should they wish a career in the insurance business.

Basic Keyboarding 266-052

The student will receive instruction in basic alpha-numeric keyboarding techniques and the preparation of typewritten communications associated with the specific program of study. Some topics may include microcomputer applications where facilities are available.

Business Law for Marketing 254-005

This course introduces the Canadian legal system with emphasis on marketing and business law in Ontario as it affects business activities.

Business Mathematics 281-010

Various instructional approaches will be used to enable the student to pursue and to achieve a satisfactory level of competence in the following areas: arithmetic operations; percentages; basic algebra; simple interest; compound interest; present value; annuities and bonds. This is a prerequisite for Business Statistics and Quantitative Analysis.

Business Policy 1 252-310

This course employs cases to study corporate policy as well as a business simulation (INTOP). The latter provides a means to see Policy 1 in a competitive environment.

Business Policy 2 252-510

This course is a continuation of Business Policy 1. The student is exposed to a sophisticated and management-oriented simulation. The simulation offers the student the means to study Business Policy in a competitive environment.

Business Statistics 283-110

This course covers modern descriptive and inferential statistics. Little mathematical sophistication is required as the course deals with the application of formulas and techniques and not their derivation. Emphasis will be on the recording, analysis and presentation of data, forecasting and decision making.

Buying Orientation 243-314

The key to successful retailing is buying merchandise that will appeal to customers, selling it at the right price, and earning a profit for the store. A successful buyer must be alert to the needs of his customer, and must have contact with reliable suppliers and manufacturers. This course will focus on goal setting and the planning required to achieve these goals through basic assortment planning, promotional buying and execution and control of the buying function. The Retail Management student will learn to identify buying alternatives suitable for various product lines and store types.

Cobol 1 231-710

This course will enable the student to develop sufficient knowledge of COBOL to program complex procedures representative of typical business applications. The concepts and organization of the language will be discussed from an efficiency point-of-view. The majority of common business programming techniques using COBOL will be covered from an applications approach. A case study may be required.

Cobol 2 231-410

This is a continuation of COBOL 1 and deals with more advanced COBOL applications. Language features, such as Report Writer, SORT, VSAM File Updates, and Table Handling will be explored requiring application programs to be written by the student. A case study will be required.

Comparative Systems 232-371

This course covers some of the characteristics of time sharing systems and real time systems. The purpose of the course is to acquaint the student with the technical aspects and the business applications of these two types of systems.

Corporate Finance 223-713

This course relates to the finance function of an operating business and covers such areas as the management of assets, the need for funds, analysis of past financing, sources of funds both short and long-term, capital budgeting. Learning is experienced completely through the use of case studies with the text and accounting from the prerequisite accounting courses supplying the necessary source material.

Cost Accounting 1 225-210

This course provides an introduction to cost accounting concepts, including systems for job and process costing. Special problems relating to the application of factory overhead costs will be studied in depth.

Cost Accounting 2* 225-310

This course commences with an introduction to the budget, followed by a study of the flexible budget. Subsequent topics are the standard cost system, direct costing and cost-volume profit analysis.

Court and Tribunal Procedures 1 001-003

To teach law clerks procedures in civil courts with emphasis on areas in which a law clerk may assume greater responsibility.

Court and Tribunal Procedures 2 **001-004**

To teach law clerks procedures in criminal courts so that they will have an understanding of criminal matters required of them by their principles.

Criminal Litigation **254-129**

This course is a study of criminal court procedures in Ontario. The objective of the course is to familiarize Law Clerk students with the practice and procedures in Ontario's criminal courts.

Data Base **232-810**

This course is designed to give the students a basic insight into the essential facts about the nature of a data base, its construction and administration. It also shows that the E.D.P. (Electronic Data Processing) evolution is leading companies with significant E.D.P. operations in the direction of a data base form of information organization. Requirements for a data element dictionary, data security, and a user interface language are discussed.

Elements of Accounting **221-010**

This course provides an introduction to the subject of accounting. The full accounting cycle is covered from the introduction of data to the accounting cycle through its detailed recording. Practice will be obtained in the preparation of financial statements, maintenance of subsidiary ledgers and payroll records.

The objective of the course is to give an insight into the mechanics of accounting so that the student may have an understanding for reference in business situations or as a foundation on which he may continue in advanced study of the subject of accounting.

Elements of Information Systems **233-035**

This course provides a detailed study, at the elementary level, of the computer and computer applications in terms of historical evolution, files, flowcharting in the relationship to problem solving, and an introduction to personal computing, using PC software to solve business-related problems. An introduction to systems concepts and to systems analysis is also provided. The student should gain sufficient understanding of computer capabilities and be able to use them to their advantage in a variety of business applications.

Elements of Law 1 **254-040**

This course will provide an introduction to the study of Canadian legal systems with a particular emphasis on the law in Ontario. The course will primarily concern itself with business law, however, there will be time spent with the other aspects of Ontario and Federal law. The major objective of the course is to give the student sufficient understanding of law that they will have some facility to use in whatever type of occupation they may undertake.

Elements of Pension Plans & Employee Benefits **253-114**

A basic review of statutory, and employer-sponsored pension, group insurance, unemployment and incentive plans.

Elements of Salary Compensation **253-113**

This program will cover the philosophy and practical application of salary and benefit administration. As a specialty within the personnel administration field, the course will provide an introduction to the principles involved in developing and maintaining an effective salary and benefit program for employees.

Elements of Systems **233-170**

This course is an introduction to the techniques of Systems Analysis. It will cover such topics as: concepts of analysis, data gathering, forms and field design, and procedures to implement a computer system. The student, using a case study, tries to improve a typical business system and demonstrate their ability by writing reports and presenting a proposal describing the changes.

EDP Retail **233-080**

This course presents an introduction to the computer as used in the retail environment. Consideration will be given to various hardware such as CPU, direct access devices, terminals, POS, computer output microfilm, etc. Since software is needed to successfully implement the hardware, this aspect of the computing industry will also be considered.

Facilities Planning **291-014**

This course outlines and allows familiarization with techniques to allow analysis and development of effective plant and office layouts. Material handling requirments will be analysed considering the production requirement and the facilities necessary to achieve it at least cost.

Financial Controllorship 1 **223-715**

This course gives the students a basic understanding of financial planning and control with emphasis on the analysis of needs, acquisitions and utilization of funds in a decision making context.

Financial Controllorship 2 **223-725**

This course is the second part of the Financial Management course and is meant to reinforce the topics in the primary course and to augment it by introducing items from financing and investment decisions such as capital markets, issuance of equity securities, leasing and dividend policy.

First Aid & Accident Prevention **759-103**

This course will teach the student practical skills based on first aid principles and standardized procedures related to emergency treatment of persons in accident situations. Consideration will be given to causes and prevention of accidents and accidental injuries. Upon successful completion of the course, the student will be awarded the St. John Ambulance Standard First Aid Certificate.

Human Resources Computer Applications **233-042**

This course offers a hands-on approach in the use of the computer in developing various reports for effective Human Resources Management. Report generation will cover manpower forecasting, budgeting, costing, performance appraisal analysis and other planning control techniques.

Income Tax 1 **228-712**

This course provides a study of current income tax legislation by reference to the effective Income Tax Act. Federal and Provincial Income Tax laws, as they affect individuals, is covered.

Income Tax 2 **228-715**

This course covers in more depth the introduction to income tax previously covered by the students. The emphasis is on special income tax problems covering individuals and corporations and their shareholders.

Intermediate Accounting 1 **223-214**

This course will cover, in more depth, the introduction to accounting previously covered. The emphasis is on accounting theory and concepts and an analysis of the special problems that arise in applying these underlying concepts to financial accounting. Includes a computerized practice set.

Intermediate Accounting 2 **223-313**

This course is a continuation of Intermediate Accounting 1, placing emphasis on accounting theory and conducting an in-depth study of the analysis of special problems that arise in applying these concepts to financial accounting.

Internal Auditing **227-410**

This course provides an introduction to auditing, with emphasis on the attest function: the examination of financial statements, records and other evidence in order to express an opinion as to the fairness and dependability of the information presented therein.

Interviewing Techniques **251-022**

This course is designed to give students practical experience in a variety of interviewing situations. Topics include employment interviewing, coaching and counselling, performance appraisals, discipline procedure, etc. all within the framework of a total management approach.

Intro to Systems Analysis 1 **232-170**

You will study the nature of the systems concept and how it is used in the business environment. Other topics include manual procedures, forms design and control, and the design feasibility of installing or expanding a computer system.

Intro. to Accounting 1 **221-011**

This course assumes no accounting background on the part of the student. It covers the complete accounting cycle with emphasis on the conceptual as well as the procedural elements of the cycle. The course concludes with a chapter on accounting for cash.

Intro. to Accounting 2 **221-111**

This course provides a detailed study of the accounting for the various items appearing on the balance sheet, their control and effects upon related items of income and expense, including accounting differences for each type of business enterprise.

Inventory Management Principles **243-202**

The major purpose of inventory management is to ensure that the

right merchandise is stocked in the right quantities at the right time. This course examines the mechanics and decisions involved in this process. The importance of inventory management is stressed through examining the costs involved in having either too much, or too little stock. Forecasting sales, planning the merchandise mix, ordering techniques and actions to be taken on fast and slow-moving merchandise are examined in order to understand how to get in and out of a season profitably.

Labour Relations 253-111

This course gives an introduction to: the trade unions movement; the process of collective bargaining; certification procedure; unfair labour practices; the nature of the collective agreement; grievance procedure and the process of conciliation and arbitration; strikes and lockout. The objective is to give the student a working knowledge of the parts played by management - unions - and government in labour relations.

Managerial Accounting 223-212

This course provides an introduction to some of the financial tools available for use in managing a business. It is concerned with the use of financial information rather than the accumulation of financial data. The principle areas studied are: an introduction to cost accounting, funds flow, budgeting and consolidations.

Manufacturing Operations 252-010

This course provides an overall view of production operations management. The major areas covered will be production planning, production control, plant layout and materials handling, methods analysis and motion and time study. The objective of the course is to give the student a working knowledge of the production aspects of a manufacturing organization within the operations department.

Marketing Admin. 241-810

The planning of alternative marketing strategies is essential to successful business. Students will learn to use management techniques and skills currently being employed by leading companies so as to critically evaluate these strategies and make basic management decisions. An advanced management simulation presents realistic marketing problems to students for analysis and solution.

Marketing 1 241-010

This course is designed to introduce the student to the systems idea of the marketing concept as practiced in business management . It will assist the student in developing a functional judgment of the role each of the controllable variables plays in the marketing mix. This course will also provide a base for future marketing courses such as, marketing 2, marketing research, marketing management, retailing, advertising, salesmanship, sales management, sales promotion, physical distribution etc.

Marketing 2 241-110

Marketing 2 is a continuation of Marketing 1. On completion of this course, students will be able to: demonstrate an understanding of marketing planning; formulate a marketing mix; evaluate a marketing effort.

Mathematics for Marketing 281-005

An introduction to mathematics and statistics with applications to marketing. The course deals with formulae and techniques used to determine simple interest, compound interest, discounts, mark up/down, inventory control, data analysis, graphic presentation and profit-loss determinations. Emphasis is placed on the process of problem solving.

Medical Machine Transcription 1 264-030

This course provides transcription practice using basic medical vocabulary material. The emphasis will be on good transcription techniques. Rules of punctuation and grammar will be reviewed.

Medical Machine Transcription 2 264-031

This course is a continuation of Medical Machine Transcription 1 and provides increased specialized medical vocabulary taken from hospitals, Workers' Compensation and doctors' files. The objective is to increase the student's accuracy and speed on transcription equipment.

Medical Machine Transcription 3 264-032

This is a continuation of skills acquired in Medical Machine Transcription2. The emphasis will be on transcription of material from hospital medical records departments, clinics, and doctors' offices.

Medical Office Procedures 1 261-232

The areas covered in this course are career opportunities, telephone procedures, appointment scheduling, reception, OHIP billing, preparing medical histories, lab reports, etc. The student will be given simulations utilizing medical terminology.

Medical Science 1 265-030

The student will be introduced to the many word elements that combine to create medical words, phrases, plurals and abbreviations in current use. Radiology, nuclear medicine and oncology require specific terms which will add to a fast growing medical vocabulary. The body as a whole and musculoskeletal systems mark the beginning studies of anatomy and physiology and the semester ends with the analysis of a medical paper, to illustrate how medical words are used by the members of the Profession.

Medical Science 2 265-130

Study of the body systems continues from integumentary through cardiovascular, blood and lymphatics, respiratory, digestive to psychiatry. Pharmacology relating to pathology in each body system, adds to the growing knowledge of the medical language. Skill in speaking, writing and understanding terminology is stressed.

Medical Science 3 265-230

The additional body systems, nervous, genitourinary, male and female reproductive, endocrine and special senses, along with the pharmacology and pathology of each, completes the study of medical science and the building of a human being. The graduate will have acquired medical language skills.

Methods Improvement 291-015

A look at the tools, techniques and philosophies behind the various programs existing in business and industry that attempts to achieve improved work methods. Whether called methods improvement, work effectiveness, methods, analysis, cost reduction, value analysis, systems and procedures or suggestion system, the title doesn't matter. They all have the same ultimate goal--more effective working methods. In today's business and industry, being cost-conscious is a necessity.

Occupational Health and Safety 253-115

This course introduces the student to the essential elements of the health and safety function including accident prevention and pro-active health maintenance techniques. Government legislation and the attention to health and safety by unions, employees and the general public are also part of the course content.

Organizational Management 1 251-121

The goal of the course is to provide a clear understanding of an approach to effective management and some of the skills required to implement this approach. The course examines the functions of a manager: planning, organizing, staffing, directing, and controlling, particularly from the first-level supervisor's point of view.

Organizational Management 2 251-221

Since Organizational Management 2 combines long-range planning with the maximum utilization of human resources through people development, this course is an extension of Organizational Management 1. It focuses on the planning, leadership and directing functions through the major intervention in most Organizational Development programs and Management by Shared Objectives (M.B.S.O.). A major experiential study will be included.

Orientation to Retailing 243-101

An essential component of success in the workplace is preparation for employment. This course includes an orientation to the retail work setting and the "how to's" of survival in this complicated arena.

Personal Computing 1 234-581

This course is an introduction to the hardware and software of the personal computer for business use. In the hardware area the student will become familiar with the various components of the personal computer and their operation. The section on software looks at various packages to get an insight into the use of PC-DOS, spreadsheets, wordprocessing and data base. Much of this course will involve hands-on experience on IBM PC's.

Personal Computing 2 234-582

While PC-1 gives an introduction to the personal computing area, this course goes into greater depth in the use of the software

Packages such as LOTUS 1-2-3, dBASE 3 and others will be explored in depth to build a high level of expertise in the use of this business software. The course will involve a lot of hands-on experience with numerous practical applications.

Personnel 251-020

As an introduction to personnel administration, this course covers a wide range of personnel topics. Emphasis throughout is to illustrate how line management can effectively utilize personnel concepts and techniques in administering the human resources of their respective operating area. As a result of this course students should be aware of personnel policies, procedures and programs as a staff function and their accomplishment as a line responsibility.

Personnel Mgmt. & Development 253-810

This course outlines the methods of personnel development in business and industrial organizations. The objective is to acquaint the student with methods of personnel development as a general responsibility of all levels of management, and as a necessary adjunct to organization management.

Physical Distribution 241-710

The movement and storage of products is an essential aspect of the distribution component of business i.e. getting the goods to the right places at the right time, at the lowest cost, while satisfying the needs of the customer. This concept is known as physical distribution or logistics. Studies will include an examination of the components of physical distribution, some techniques for managing them, and strategies for planning and organizing the overall Physical Distribution program.

Portfolio Presentations 243-412

For the preceding year, the Retail Management student will have been involved in in-depth study of retailing through in-class training and the challenge of on-the-job experience. This course will examine audio-visual techniques and seminar planning to prepare the student for a formal presentation of their specific placement location. Seminars will be presented before a team of evaluators composed of students, teachers and personnel from the retail industry.

Principles of Purchasing 291-010

This course provides a comprehensive study of procurement practices and policies used by purchasing departments. The major areas covered will be the purchasing functions, purchasing and management objectives, purchasing systems, inventory and materials management, quality assurance, price analysis, selection and evaluation of suppliers, planning and forecasting, purchasing ethics and value analysis.

Professional Selling 2 245-016

The objectives of the course are to develop the ability to make a clear, persuasive sales presentation; analyse and apply two-way communication problem solving, behavioural trait analysis, elements of persuasion, benefit selling, handling objections, presentation techniques and closing the sale. The student will develop self confidence through role playing and will also develop the ability to create practical sales approaches and form strategies.

Programming Fundamentals 231-151

In this course you will be introduced to the concepts of problem solving and programming for use in the business environment. This course provides the foundation necessary for success in subsequent programming courses. Through the use of Waterloo BASIC you will learn the elements common to many business programming languages and be introduced to programming techniques essential to business applications.

Quantitative Analysis 1 281-110

This course provides the study of some sophisticated mathematical models that can be applied to business situations. These models are selected for their applicability to the various functional areas of business - production, finance, and marketing. The purpose of this course is to prepare the students for the use of practical math models in the business community and to provide the prerequisites to Quantitative Analysis 2.

Real Estate 2 254-123

The objectives of this course are to give the students experience in the Land Title Procedure in Ontario together with a knowledge of condominiums and landlord and tenant problems. The course is designed so that the student should be capable of working in a law office or other office where a knowledge of land titles procedure is required. It s anticipated that the majority of students will also take Real Estate 1 which deals with the Registry Office procedure. It is also anticipated that the student will work under the supervision of a solicitor.

Retail Accounting 243-106

Accounting is a fundamental key in understanding the performance of a retail business. This course follows the accounting cycle as it relates to the retail firm. The student will learnthe procedures used in formulating financial statements, and through the experience of reading and analysing balance sheets and income statements and will understand the basic adjustments required to run a retail business at a reasonable profit.

Retail Advertising and Promotion 243-312

Advertising and promotion often borrow the language of war. We wage promotion campaigns and aim our advertising at a target market. We plan strategies and force the competition to react with a defensive plan. It's a tough, competitive world, and the retailer must meet the opposition with careful analysis and be able to coordinate wise promotional decisions. The student will study the production of various retail promotions, with attention to scheduling, evaluating and working with experts in the field.

Retail Computer Applications 243-419

Computer technology is part of the retail world today. Students will have the opportunity to utilize the latest software application packages to complete the analysis opportunity required in the Advanced Strategies course. Students will experiment with models and examples to explore "what if's" as they analyze various strategies.

Retail Distribution Centres 243-203

Behind every successful retail organization is an efficient and effective distribution centre. The purpose of the centre is to gather together merchandise from many different suppliers, and to distribute this merchandise to the retail outlets of the organization as it is needed. This highly organized system is studied through field trips to several distribution centres, in order to understand the processes involved even before the merchandise reaches the receiving doors of the retail store.

Retail Employee Relations 243-414

This course is a study of the relationships between companies and their employees. It recognizes that while the needs and motivations of companies and their employees may not always be in harmony, policies and practices may be used to achieve common goals. Issues will be examined with a view to maintaining a healthy and competitive retailing business while recognizing the needs and concerns of employees through positive employee relations. Students will be asked to consider topics from both employee and employer perspectives.

Retail Law 243-417

Retailing, like any other business enterprise, operates within the confines of the Canadian legal system. This course will examine those aspects of Canadian Law which apply to retailing and the execution of business transactions. Special emphasis will also be placed on retail security, the prevention of losses due to shoplifting, internal theft and other problems facing the modern retail industry.

Retail Math 243-105

Math is very much a part of the science of retailing. Fortunately, it is a skill which virtually anyone can master with a little patience and practice. The Retail Management student will learn the keys to understanding how retailing principles work in order to generate a profit.

Retail Supervision 243-416

The first level supervisor probably has more impact on employee productivity than any other element in the retail workplace. This course outlines the responsibilities and opportunities for supervisors through the application of interpersonal skills and supervisory techniques. The students will learn to increase job satisfaction and motivation in their subordinates.

Retailing 1 247-114

Fundamentals of Retailing 1 is an introductory retailing course designed to show students where and how retailing fits into the total marketing process. It provides a foundation upon which students can build an understanding of the processes and controls needed for running a successful retail operation.

Retailing 2 247-115

Fundamentals of Retailing 2 covers the examination of market opportunities for retailers, and introduces the student to some of the specialized retailing trends in Canada. It attempts to synthesize and integrate the strategies and critical issues and processes of the retail management function.

Sales and Selling Skills 243-104

Success in the retail business depends largely on salespeople. Many kinds of merchandise might sit on the shelves forever without sales people to show customers how products meet their needs and wants. Selling is an art, but it is an art which can be learned. The Retail Management student will learn the necessary skills in order to successfully follow each step of the transaction, from the initial approach to the customer, through to the closing of the sale.

Sales Management 245-110

This course addresses itself to the administration and management of the sales force, one of the major areas of marketing management. Major topics to be covered are the organization of a sales department, operation of a sales force, planning sales force activities and operations, analysis of sales operations, and evaluation of salesmen's productivity.

Selling/Sales Management 243-313

Management in a retail firm has the responsibility of getting things done through people. This is accomplished through staffing, training, and motivating those who make up the firm. This course has been designed to give the Retail Management student background information on the problems involved in staff scheduling and sales staff productivity.

Small Business Management 251-011

This course has been prepared for students who someday may be owners and/or operators of independent businesses.

Starting a New Business 240-011

On completion of this course the student should be conversant with the mechanics of small and new businesses; have developed a logical, analytic and practical business plan, and to be in an advantageous position to consider and evaluate a new business venture.

Store Design 243-108

Not all items sell because they are the best buy. This course provides an orientation to the creative and functional aspects behind store design. The successful retailer today must recognize changing consumer expectations and become flexible to meet their customer's specific needs. Although the creation of a new store design must certainly involve careful financial planning, this course is designed to look at specific physical needs such as colour, lighting and fixtures to esstablish image and promote sales.

Store Planning and Merchandising 243-107

This course provides an orientation to the selling floor, including floor layout theory and techniques. In addition, the student will learn to relate store planning and merchandising techniques to customer shopping habits, and to understand the allocation and arrangement of merchandise and space as vital aspects of productivity and profitability.

Structured Systems Analysis 232-373

This course is an extension of Systems Analysis 2 and involves the student in carrying out a detailed design or implementation of a proposed system. A proposal, similar to the one prepared in Systems Analysis 2, is further developed by the students into a detailed system design which will include program specifications. Class environment simulates that of a typical systems department. Good communication and documentation are stressed which will culminate in the production of a final report.

System Control Functions 234-270

This course is designed to give the student an understanding of the basic concepts of an operating system in a mainframe environment (IBM) with regards to 'virtual' characteristics, multiprogramming, and jobstream processing. Actual Job Control Language (JCL) statements for DOS (Disk Operating Systems) and OS (Operating System) systems are also covered.

Visual Merchandising 243-311

Display designers are integral members of modern merchandising teams. The way in which goods are placed on viewin a store can be the key to increased sales. Because many independent retail stores do not have specifically trained display personnel to arrange their merchandise in a professional manner, it is often necessary for the owner or manager to peform this function. This course is designed to give the student the practical how-to-do-it basics of display. The student will examine the creative planning, costing and actual building of the display, and participate in practical workshop assignments to experiment with various display techniques.

Wills & Intestate Succession 254-124

This course is designed to familiarize the student with some of the language of wills and estates both testate and intestate, including the documentation involved, the procedures and relevant substantive and procedural law. The objective for the student is to be able to effectively seek employment in any one of the several fields involved in processing the estates of the deceased persons, including trust companies and government departments.

Work Measurement 291-016

This course provides an appreciation of methods analysis and measurement techniques. The major sections covered will be methods analysis, motion and time study by stop watch and by predetermined time systems, peformance rating, measuring of indirect labour and work sampling. The objective of this course is to give the student a working appreciation of the tools used in analysing a method and establishing the task time.

Health Sciences Programs

Advanced Studies in Early Childhood Education

North Campus

This post-diploma program enhances the knowledge and skills used with children. These courses are challenging and are taught by professionals with extensive experience and special skills. Six courses must be completed to obtain the certificate.

Admission Requirements

Diploma in Early Childhood Education or equivalent

Interests and Skills

- commitment to personal growth through professional development
- willingness to meet academic challenge
- creativity and openness to new ideas and experiences

Job Opportunities

Prior to entry into this program, the student must be qualified to work in a preschool setting. She/he may be active in the field or may be pursuing other activities while furthering her/his professional development through these courses. A student who successfully completes this program may move into the position of assistant supervisor or supervisor of a preschool centre.

Curriculum

The student needs to complete any 6 of the course offerings in order to receive the certificate.

		Credits
793-801	After-school Programming for 6-10 Year Olds	2
793-802	Cognitive Development: Theory & Practical Applications in Early Childhood	2
793-803	Developmentally Appropriate Activities	2
793-804	Development of Home Programming	2
793-805	Effective Supervision and Communication	2
793-806	Infant-Toddler Programming	2
793-807	Integration - Community-Based Services	2
793-808	Language Development in Young Children	2
793-809	Learning Through Movement	2
793-810	Music and Creative Movement	2
793-811	Parent-Teacher Relationships	2
793-812	Techniques of Individual Programming	2
793-813	Rhymes and Stories for the Very Young	2

Ambulance and Emergency Care

North Campus

Two semesters starting September and six weeks in the Spring

You will acquire the knowledge, skills and competence to provide basic emergency care and reduce situational hazards to patients. The program consists of courses in theoretical and clinical aspects of emergency patient care, with supporting courses in biology and social sciences.

Graduates receive an Ambulance and Emergency Care certificate and are eligible for certification as an Emergency Medical Care Assistant in Ontario.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- Senior level biology and chemistry, both at the general level
- attendance at an information-sharing and assessment session
- recommended age: 19 years minimum by end of December of first year at the College
- secondary school science comprehension questionnaire and English pretest
- medical health certificate
- valid driver's license (class G)
- current St. John or Red Cross standard certificate
- current O.H.F. C.P.R. Basic Rescuers Certificate

In addition, employers who provide our field placement settings may require a police record check for criminal offences prior to acceptance of a student into a field placement situation. This may restrict the opportunities of field placement for students with a criminal record.

It is important that potential students understand that the above situations may impede them from completing their full program and/or securing employment.

Job Opportunities

The Ontario Ambulance Act requires the successful completion of this program before you can gain full-time employment in the ambulance system in Ontario.

You can work as ambulance officers in ambulance services or as technical assistants in hospital emergency departments and in some health and medical centres.

There is a potential to advance into management and/or paramedical services.

Additional Costs

$300 for uniforms and $350 for books and supplies

Profile of a Good Student

- industrious, committed, self-disciplined, articulate
- comfortable in chemistry and biology
- relates well with peers and patients
- can work well alone but is flexible enough for team work

Curriculum

Semester 1 (25 hours/week)	Credits
731-112 Ambulance Maintenance, Operation & Safety	1
731-110 Ambulance Service 1	2
759-101 Human Anatomy and Physiology, Intro.	4
759-108 Community Health	2
731-115 Emergency Patient Care 1	7
731-116 Emergency Patient Care Lab 1 *Pre-Req:* 731-115 Emergency Patient Care 1	1
941-215 Communications for Health Sciences	4
934-126 Psychology - Applied 1 A.E.C.	4

Semester 2 (27 hours/week)	Credits
731-213 Ambulance Service 2 *Pre-Req:* 731-112 Ambulance Maintenance, Operation & Safety, 731-110 Ambulance Service 1, 731-115 Emergency Patient Care 1	3
731-109 Emergency Patient Care 2 *Pre-Req:* 731-115 Emergency Patient Care 1	6
731-210 Emergency Patient Care Lab 2 *Pre-Req:* 731-109 Emergency Patient Care 2	5
759-104 Moral and Ethical Issues in Health	2
731-208 Physical Education	2
924-119 Psychology - Applied 2 A.E.C.	4
731-209 Rescue Procedures	2
739-111 Microbiology	1
731-205 Emergency Patient Care Seminar *Pre-Req:* 731-115 Emergency Patient Care 1	2

Spring Session (40 hours/week)	Credits
731-505 Applications in Emergency Patient Care *Pre-Req:* 731-213 Ambulance Service 2, 731-109 Emergency Patient Care 2, 731-205 Emergency Patient Care Seminar	15

Early Childhood Education

North Campus

Four semesters starting September

The Early Childhood Education Program provides students with the knowledge and techniques/skills necessary for working with the preschool child. Emphasis is placed on total child development and the guidance of the child toward becoming self-reliant and emotionally stable. By learning how to provide a warm, nurturing yet stimulating environment, graduates should be able to foster mental health, growth and development in each child. Communication skills and interpersonal relationships between children, parents and adults in general are an essential focus in this program.

The minimum age requirement for employment according to the Day Nurseries Act is 18 years. Some field placement settings may require a check with the Police Department to determine whether or not you have a criminal record of offenses. Students in this position may not be eligible for field placement.

Current population problems, such as public housing, high rise urban and suburban developments, and growing economic needs have increased public awareness of the importance of the early childhood years in establishing good social, emotional and play patterns.

We are currently witnessing major change in services for children with special needs. Infant services and regular day care programs are beginning to accept that all children, to an extent, have special needs. Exposure to all children is a focus for this program.

During the first two semesters, students will have field placements with children in day care centres and nursery schools. In the third and fourth semesters, field placement will be either a specialized setting for preschool children, a junior or senior kindergarten and/or day care.

This program has use of four lab/demonstration facilities. In this way, the student is able to practise the theory learned in the classroom setting. The lab facilities include an activity centre, an integrated day care for children including those with special needs, a day care with a kindergarten program and a work-related day care in a nearby shopping mall. Children range in age from birth to 7 years. This wide range of learning opportunity is unique to the community college system.

To accommodate the expanding skills and knowledge required inthis field, the College is planning to extend the program to 3 years, pending Ministry approval.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- personal health review and immunization record, certified by a qualified physician. No limitations that would prevent effective supervision of children.
- written proof of experience with preschool children in a structured setting (day care, nursery school, parent co-op). Age range should be birth to 5 years. Experience does not include babysitting and the 40 hours minimum should be completed prior to March 1 and be recent in nature.
- pre-admission testing, questionnaire and attendance at an orientation session.
- upon acceptance into the program, students will be required to complete on their own accord a basic standardized first aid certificate and a cardiopulmonary resuscitation course (Infant-Child or Heart Saver Baby). This must be completed prior to commencement of classes. Documentation must be submitted.

In addition, employers who provide our field placement settings may require a police record check for criminal offences prior to acceptance of a student into a field placement situation. This may restrict the opportunities of field placement for students with a criminal record.

It is important that potential students understand that the above situations may impede them from completing their full program and/or securing employment.

Interests and Skills

- realistic attitude and an understanding of frustrations involved
- awareness of own identity and strengths

Early Childhood Education (cont'd.)

- able to organize time and meet deadlines
- outside interests and activities
- personal flexibility, emotional maturity and stability
- good communication skills

Job Opportunities

After graduation, students may complete two years of practical training at a recognized day nursery and qualify for certification by the Association for Early Childhood Education.

Graduates work in day nurseries, day care centres, nursery schools, community housing facilities, hospitals and some treatment centres for young children with special needs. The Early Childhood Education program is gaining increased recognition in a variety of agencies and institutions.

With the growth of day care in the province, graduates who have started as classroom teachers have been able to become supervisors or owners of their own centres.

The minimum age requirement for employment in this field according to the Day Nurseries Act R.S.O. 1980, C. III Ontario Regulations 760/83 is eighteen (18) years of age.

Expected Workload

The workload is very heavy and you can expect a minimum thirty (30) assignments per semester. The overall field work hours are approximately one thousand. To succeed in this program, students must be able to speak/write English fluently.

Additional Costs

- Textbooks $400/year
- Travel to field placements $100/year
- Expendable supplies $200/year

Curriculum

Important notice to all Early Childhood Education Students: In order to progress to the next semester, you must successfully complete all the courses for the semester in which you are registered.

Semester 1 (26 hours/week)		Credits
791-101	Teaching the Young Child 1	4
791-103	Creative Activities Workshop 1	3
792-108	Abused Child	1
791-107	Field Practice 1	6
791-109	Integrative Seminar 1 (E.C.E.)	1
791-111	Nutrition & Health	1
792-106	The Child with Special Needs 1	2
791-113	Psychology of Infancy & Early Childhood 1	4
941-115	Communications 1	4

Semester 2 (29 hours/week)		Credits
791-201	Teaching the Young Child 2	4
791-203	Creative Activities Workshop 2	3
791-207	Field Practice 2	6
791-209	Integrative Seminar 2 (E.C.E.)	1
791-215	Observing and Recording Children's Behaviour	2
792-206	The Child with Special Needs 2	2
791-213	Psychology of Infancy & Early Childhood 2	4
941-116	Communications 2	4
	General Studies	3

Semester 3 (27 hours/week)		Credits
791-329	Psychology of Later Childhood & Adolescence 1	2
791-000	Community Resources (E.C.E.)	2
791-307	Field Practice 3	10
791-309	Integrative Seminar 3 (E.C.E.)	1
791-317	Child in the Family	3
792-306	The Child with Special Needs 3	2
791-321	Individual Program Planning	2
791-323	Infant/Toddler Care	2
	General Studies	3

Semester 4 (26 hours/week)		Credits
791-429	Psychology of Later Childhood & Adolescence 2	2
791-421	Administrative Procedures (E.C.E.)	2
791-407	Field Practice 4	10
791-409	Integrative Seminar 4 (E.C.E.)	1
791-423	Parent-Teacher Relationships	3
791-425	Comparative Studies in Early Childhood	2
792-406	The Child with Special Needs 4	2
791-427	Kindergarten/ After School Care	1
	General Studies	3

Early Childhood Education For the Developmentally Handicapped

North Campus

Four semesters, plus one field placement split into two May/June block experiences (six weeks each) starting September

In this program you will learn the techniques and skills needed to provide an educational program for people with developmental special needs, from birth to early adult years.

Major emphasis is placed on younger persons with developmental special needs in educational programs (birth to 10 years of age). As infant services, regular day care and nursery school programs are beginning to accept that all children, with or without developmental problems, have special needs; exposure to a wide range of children is a focus for this program.

Early Childhood Education For the Developmentally Handicapped (cont'd.)

The minimum age requirement for employment according to the Day Nurseries Act is 18 years. Some field placement settings may require a check with the Police Department to determine whether or not you have a criminal record of offenses. Students in this position may not be eligible for field placement.

During the first two semesters, students will have field placements with non-handicapped children in day care centres and nursery schools. In the third and fourth semesters, field placement will be in nursery schools for specific types of handicapping conditions and developmental classes in the school system. Some students may be placed in specialized settings such as Infant Stimulation Projects, Adult Developmental Programs or agencies serving specific handicapping conditions.

The 5th semester, or work semester, is broken down into May and June periods at the end of each year. The first period will be spent with children with developmental special needs in settings acceptable to the field coordinator. The second period will be spent with non-handicapped children in settings acceptable to the field coordinator. Students will not be paid for these two six-week periods, and will be charged a fee to cover supervision.

This program has the use of four lab/demonstration facilities. In this way, the student is able to practise the theory learned in the classroom setting. The lab facilities include an activity centre, an integrated day care for children including those with special needs, a day care with a kindergarten program and a work-related day care in a nearby shopping mall. Children range in age from birth to 7 years. This wide range of learning opportunity is unique to the community college system.

Please note: To accommodate the expanding skills and knowledgerequired in this field, the College is planning to extend the program to 3 years pending Ministry approval.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- personal health review and immunization record as certified by a qualified physician. No limitations that would prevent effective supervision of children.
- written proof of experience in a structured setting with children who have developmental special needs. Age range should be birth to 10 years, preferably with preschool children. Further exposure to preschool children who do not have a handicapping condition in a day-nurseries is an additional asset. Experience (not babysitting), should be educational in focus; the 40 hours minimum should be completed prior to March 1st and be recent in nature.
- pre-admission testing, questionnaire and orientation session.
- upon acceptance into the program, students will be required to complete on their own accord a basic standardized first aid certificate and a basic cardiopulmonary resuscitation course (Infant-Child or Heart Saver Baby). This must be completed prior to commencement of classes. Documentation must be submitted.

In addition, employers who provide our field placement settings may require a police record check for criminal offences prior to acceptance of a student into a field placement situation. This may restrict the opportunities of field placement for students with a criminal record.

It is important that potential students understand that the above situations may impede them from completing their full program and/or securing employment.

Interests and Skills

- realistic attitude and an understanding of the frustrations involved
- able to organize time and meet deadlines
- outside interests and activities
- awareness of own identity and strengths
- emotional maturity and stability
- good communication skills

Job Opportunities

After graduation, students may complete two years of practical training at a recognized preschool and qualify for certification by the Association for Early Childhood Education. Students graduating from this program will be equipped to work in day nurseries, day care centres, nursery schools, community housing facilities, hospitals and treatment centres for young children with special needs. With some experience, graduates have become supervisors, infant stimulation project workers, have started their own business in age-appropriate equipment and toys, and may qualify as Resource Teachers in integrated day nurseries as defined in the proposed Standards and Guidelines for staff qualification in the Day Nurseries Act.

All job opportunities listed for Early Childhood Education graduates are applicable because this is an E.C.E. diploma with a specialization in handicapping conditions.

The minimum age requirement for employment in this field according to the Day Nurseries Act R.S.O. 1980, C. III Ontario Regulations 760/83 is eighteen (18) years of age.

Expected Workload

The workload is very heavy and you can expect a minimum of thirty (30) assignments per semester. The overall field work hours are approximately twelve hundred. To succeed in this program, students must be able to speak/write English fluently.

Additional Costs

- Textbooks $400/year
- Travel to field placements $100/year
- Expendable supplies $200/year

Curriculum

Important notice to all Early Childhood Education for the Developmentally Handicapped students: In order to progress to the next semester, you must successfully complete all the courses for the semester in which you are registered.

Semester 1 (30 hours/week)		Credits
791-101	Teaching the Young Child 1	4
791-103	Creative Activities Workshop 1	3
792-108	Abused Child	1
792-102	Field Work 1	6
792-104	Integrative Seminar 1 (E.C.E.D.H.)	1
791-111	Nutrition & Health	1
792-106	The Child with Special Needs 1	2
792-116	Seminar on the Child with Special Needs 1	2
792-112	Elements of Human Behaviour 1	3

Early Childhood Education For the Developmentally Handicapped (cont'd.)

792-114	Human Growth & Development 1	3
941-115	Communications 1	4

Semester 2 (30 hours/week)		Credits
791-201	Teaching the Young Child 2	4
791-203	Creative Activities Workshop 2	3
792-202	Field Work 2	6
792-204	Integrative Seminar 2 (E.C.E.D.H.)	1
791-215	Observing and Recording Children's Behaviour	2
792-206	The Child with Special Needs 2	2
792-214	Human Growth & Development 2	3
792-216	Normalization within the Community	2
941-116	Communications 2	4
792-212	Elements of Human Behaviour 2	3

Semester 3 (24 hours/week)		Credits
792-318	Developmental Activities 1	2
792-320	Program Planning and Administration	3
792-302	Field Work 3	6
792-304	Integrative Seminar 3 (E.C.E.D.H.)	1
792-322	Teacher-Parent Involvement	3
792-306	The Child with Special Needs 3	2
792-310	Seminar on the Child with Special Needs 3	2
791-425	Comparative Studies in Early Childhood	2
	General Studies	3

Semester 4 (26 hours/week)		Credits
792-418	Developmental Activities 2	2
792-402	Field Work 4	6
792-404	Integrative Seminar 4 (E.C.E.D.H.)	1
792-406	The Child with Special Needs 4	2
792-410	Seminar on the Child with Special Needs 4	2
	General Studies	3
792-426	Family Dynamics	3
792-421	Administrative Procedures (E.C.E.D.H.)	2
791-315	Community Resources (E.C.E.D.H.)	2
792-428	Advocacy in the Community	1

Spring Semester (May/June of each year)		Credits
792-503	Field Work 5	12
792-603	Field Work 6	12

Funeral Service Education

North Campus

Four semesters starting September

In this program you will encounter every aspect, both practical and theoretical, of funeral service. As part of the Health Sciences Division, the program stresses the important therapeutic function which the funeral service has for the living. Behavioural science courses are designed to help you meet the needs of those who are to be served in a funeral service. A business management course has been included so that you will gain a more acute understanding of the inherent problems that exist in the operation of any business. You will accumulate the necessary practical experience through use of the Humber College facilities and cooperating funeral homes.

If you are considering this program, you should have a strong desire to be helpful to people and the basic compassion and tolerance to carry out this desire with people of all socio-cultural backgrounds. You should also have the potential for excellent communications skills.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- pre-admission testing
- medical health certificate (medical health history and Physician's statement of health)
- applicant must have a Class G Driver's Licence
- applicant must provide proof of a minimum of 40 hours observation or work experience in a funeral home. This must be completed prior to March 1.
- valid St. Johns Standard First Aid Certificate (or equivalent). Applicants without this requirement would be expected to obtain it within the first semester

Criteria for Re-admission:

Due to the heavy oversubscription for this unique program,students are only allowed two attempts at each semester. Should applicants wish to further pursue this program, they are subject to the following re-admission criteria.

A) Meet 4 of the following 5 conditions:

1. Provide evidence of continued interest and experience in the field.
2. Provide evidence of continuing education (upgrading or general).
3. Provide evidence of continuing education (professional eg. attendance at professional meetings and conferences.
4. Demonstrate an awareness of current issues in the field.
5. Provide prescribed letters of recommendation from 3 professionals, one of whom is not a funeral director.

B. Attend interviews as required (minimum of 1).

C. Successfully complete the regular program pre-admission testing and procedures.

D. Student must maintain satisfactory academic progress.

Job Opportunities

Graduation from the program entitles the student to try the Ontario examinations for a licensed funeral director. This licence qualifies the graduate to practise in Ontario. Graduates of the program could also obtain jobs in funeral service in other provinces. However, they would

Funeral Service Education (cont'd.)

have to be prepared to write examinations in those provinces to obtain licensure there. In addition, some graduates find employment in funeral service supply and/or cemetery organizations.

Curriculum

Semester 1 (26 hours/week)		Credits
759-101	Human Anatomy and Physiology, Intro.	4
759-108	Community Health	2
732-102	Embalming Lab 1	2
732-101	Embalming Theory 1	3
759-103	First Aid & Accident Prevention	1
941-215	Communications for Health Sciences	4
	General Studies	3
759-111	Microbiology	1
759-104	Moral and Ethical Issues in Health	2
732-106	Orientation to Funeral Service 1	4

Semester 2 (27 hours/week)		Credits
732-209	Cell Physiology *Pre-Req:* 732-101 Embalming Theory 1, 732-102 Embalming Lab 1, 759-101 Human Anatomy and Physiology, Intro.	1
732-202	Embalming Lab 2 *Pre-Req:* 732-101 Embalming Theory 1, 732-102 Embalming Lab 1	2
732-212	Embalming Theory 2 *Pre-Req:* 732-101 Embalming Theory 1, 732-102 Embalming Lab 1	4
266-052	Basic Keyboarding	3
732-211	Orientation to Funeral Service 2 *Pre-Req:* 732-106 Orientation to Funeral Service 1	4
759-203	Pathology *Pre-Req:* 759-101 Human Anatomy and Physiology, Intro.	3
924-111	Psychology of Grief *Pre-Req:* 732-106 Orientation to Funeral Service 1	4
732-213	Restorative Art *Pre-Req:* 732-101 Embalming Theory 1, 732-102 Embalming Lab 1	3
251-007	Small Business Mgmt.	4

Semester 3		Credits
732-301	Theoretical Applic. 1 (Correspondence Course)	4

Important Notice for all Funeral Service Education students: In order to progress into Semester 3, you must have already successfully completed Semesters one (1) and two (2).

Semester 4		Credits
732-401	Theoretical Applications 2 (Correspondence Course) *Pre-Req:* 732-301 Theoretical Applic. 1 (Correspondence Course)	4

Spring Session		Credits
732-502	Theoretical Applications 3 (On Campus) *Pre-Req:* 732-401 Theoretical Applications 2 (Correspondence Course)	3

Gerontology (Post-Diploma)

North Campus

This is a post-diploma certificate program specifically designed for professionals working with the elderly who wish to acquire additional training. The overall purpose of the program is to meet the learning needs of individuals, in an effort to enhance the quality of life of the older adult. The program is offered on a part-time basis during all four semesters, one evening per week plus an occasional weekend. It can be completed in two years.

Admission Requirements

- applicant will be interviewed and may be required to supply a letter of reference for admission to the program
- supervision of field experience for all students will be agreed upon jointly by Humber College and the agency involved

Curriculum

Compulsory:		Credits
781-801	The Aging Process	3
781-802	Dynamics of Communication with the Elderly and their Families	2
781-813	The Elderly: Individual & Social Perspectives	3
781-804	The Elderly: Policies and Issues	3
781-805	Independent Study Project	3
781-810	Community Field Experience	2
781-806	Institutional Field Experience	2
781-812	Individual Field Experience	2

Electives:		
781-807	Leadership Skills	2
781-808	Principles & Practices of Group Work	2
781-809	Principles and Methods of Motivation and Reactivation	2

Gerontology (Post-Diploma) (cont'd.)

761-801	Management Skills for Nurses	2
781-811	Conference/Workshop Attendance	2
781-814	Service Provision & The Elderly Client	2
781-815	Introduction to Gerontology	1

Life Threatening Illness, Dying and Bereavement

North Campus

Multidisciplinary

This post-diploma certificate program for professionals who are currently employed in a related human service field requires at least one year of current working experience in that field.

The program is offered on a part-time basis during the fall, winter and spring semester, one evening per week plus an occasional weekend. The program can be completed in one year and offers supervised practical experience.

Admission Requirements

- applicant will be interviewed and must supply a letter of reference for admission to the program
- students employed in a clinical or institutional setting will be required to provide permission from the institution to engage in the practicum on site
- supervision of clinical practice for all students will be agreed upon jointly by Humber College and that institution. Clinical placements will be provided for all other students, limited to the availability of supervisors

Curriculum

Semester		Credits
782-810	Death in Our Society	2
782-802	Life Threatening Illness *Pre-Req:* 782-810 Death in Our Society	2
782-804	Helping the Critically Ill and Their Families *Pre-Req:* 782-810 Death in Our Society, 782-802 Life Threatening Illness	3
782-811	Field Placement 1 *Pre-Req:* 782-810 Death in Our Society, 782-802 Life Threatening Illness	1
782-803	Death, Grief and Bereavement *Pre-Req:* 782-810 Death in Our Society, 782-802 Life Threatening Illness, 782-804 Helping the Critically Ill and Their Families, 782-811 Field Placement 1	2
782-805	Helping the Bereaved *Pre-Req:* 782-810 Death in Our Society, 782-802 Life Threatening Illness, 782-804 Helping the Critically Ill and Their Families, 782-811 Field Placement 1	2
782-807	Field Placement 2 *Pre-Req:* 782-810 Death in Our Society, 782-802 Life Threatening Illness, 782-804 Helping the Critically Ill and Their Families, 782-811 Field Placement 1, 782-805 Helping the Bereaved	1

Nursing Assistant

North Campus

Two semesters and seven weeks in the spring

The role of the Nursing Assistant is to be an integral part of the nursing team, working mainly at the bedside with patients in long-term and acute-care settings. However, there are opportunities for the Nursing Assistant to take a leadership role in nursing homes. Our thirty-nine week course shares a common first semester with the nursing students, preparing them in the basic skills of nursing practice. Emphasis throughout the program is placed on increasing competence in the theory and practice of nursing. Clinical experience is obtained in both long-term and acute care settings. Supporting courses in the biological and human sciences are also taken.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- pre-admission questionnaire
- pre-admission testing (Fee $20)
- personal health record
- basic cardiac life-support (CPR Certificate)
- First Aid Certificate

Interests and Skills

The candidate should enjoy meeting and working with people of all ages and should be in good physical and mental health. Volunteer experience in hospitals can be helpful in adjusting to the hospital setting. Ability to problem solve and good reading and writing skills are an asset.

Job Opportunities

Graduates are eligible to write the Nursing Assistant Registration Examination through the College of Nurses of Ontario. Employment opportunities include acute and chronic-care hospitals, nursing homes, some community health agencies and doctor's offices.

Additional Costs

The following expenses are in addition to tuition fees. The cost of textbooks is approximately $650. Students are required to purchase nursing uniforms, shoes and stockings.

Field Placement

Acute and chronic-hospitals in the cities of Etobicoke, York, North York and Toronto.

Residence Accommodation

Accommodation for female students for part or all of their program is available at the Osler Campus (5 Queenslea Avenue, Weston Ontario) within the ten-story residence tower. Since there are only a limited number of spaces, applications for residence should be as early as possible. Further information is available upon request. (Telephone (416) 249-8301).

Nursing Assistant (cont'd.)

Profile of a Good Student

A successful student in the Nursing Assistant Program maintains grades above 60% in each subject throughout the program.

An above-average student does extra reading in content areas and does preparatory reading prior to classes.

This student has a good ability to solve problems and uses this in the clinical setting applying classroom knowledge to practice.

A keen interest in people is evident in the student's ability to develop positive relationships with classmates, teachers and patients.

Curriculum

Semester 1 (27 hours/week)		Credits
702-100	Nursing Theory 1	5
702-101	Nursing Practice 1	8
739-112	Basic Anatomy and Physiology (Nursing)	4
923-101	Introductory Sociology	3
924-208	Developmental Psychology	3
941-215	Communications for Health Sciences	4

Semester 2 (24 hours/week)		Credits
712-206	Legal and Professional Issues for the Nursing Assistant	1
712-200	Nursing Theory 2 (NA)	8
Pre-Req: 924-208 Developmental Psychology, 739-112 Basic Anatomy and Physiology (Nursing), 702-100 Nursing Theory 1, 702-101 Nursing Practice 1		
712-207	Nursing Practice 2 (NA)	21
Pre-Req: 702-100 Nursing Theory 1, 702-101 Nursing Practice 1		
712-208	Ethical Issues in Health Care	1

Important notice to all Nursing Assistant students: In order to enter into Pre-graduate Experience (712-209) you must first successfully complete all courses in Semesters 1 and 2.

Spring Session (37.5 hours/week for 7 weeks)		Credits
712-209	Pre-Graduate Experience	16

Nursing

North Campus

Six semesters

The nursing program prepares the student to help clients and their families stay well, adapt to conditions of illness and to cope with the dying process. Through specific courses in the humanities, students acquire knowledge about the individual, the family and community, examining the influences on behaviour through lifestyle, growth and development. Throughout the program, professional, legal and ethical issues encountered in nursing are discussed. Clinical practice is provided in a variety of settings with the supervision of the clinical teacher until the student demonstrates confidence in nursing judgement and decision making. Upon successful completion of the Program the student is eligible to write the Provincial Nurse Registration Examination.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- two different senior level sciences at the general level (chemistry, physics or biology)
- pre-admission testing (fee $20)
- pre-admission questionnaire
- personal health review by a physician
- immunization record
- Basic Cardiac Life Support Certificate (CPR)
- First Aid Certificate

In-coming Registered Nursing Assistants must show proof of current regisration with the College of Nurses of Ontario in order to be eligible for exemptions in some of the first semester courses.

Interests and Skills

The candidate should enjoy meeting and working with people of all ages and should be in good physical and mental health. Volunteer experience in hospitals can be helpful in adjusting to the hospital setting. Ability to problem solve and good reading and writing skills are an asset.

Job Opportunities

Graduates will be eligible to write the Provincial Nurse Registration Examination. Positions exist with acute and chronic-care hospitals, voluntary community health agencies, homes for the elderly, industry and doctor's offices.

Additional Costs

The cost of textbooks varies each semester. Most program texts are purchased the first year of the Program and approximate costs are therefore distributed accordingly.

Year 1 - $800
Year 2 - $50
Year 3 - $50

The cost of uniforms including shoes and stockings is approximately $180 in the first year of the Program. The cost of additional supplies ie. pens, paper, etc. is approximately $100 per year.

Field Placement

Although our field placements are located mainly in the cities of Etobicoke and York, students will be required to access agencies in other areas of Toronto. Placements include acute care, long-term care, rehabilitation, psychiatric and community facilities.

Residence Accommodation

Accommodation for female students who may elect to live in residence for part or all of their program is available at the Osler Campus, (5 Queenslea Avenue, Weston, Ontario). Since there are only a limited number of spaces, application for residence should be as early as possible. Further information is available upon request. (Telephone (416) 249-8301).

Profile of a Good Student

A successful student demonstrates an ability to research information independently combined with good problem-solving skills.

A genuine interest in nursing as a career coupled with realistic personal expectations facilitate the socialization process into the profession.

Nursing (cont'd.)

An ability to interact with people of all ages enables the student to establish the expected therapeutic relationship with clients in the clinical setting.

Curriculum

Important notice to all Nursing students: All courses in each year of the program must be successfully completed to move into the subsequent year.

Semester 1 (27 hours/week)		Credits
702-100	Nursing Theory 1	5
702-101	Nursing Practice 1	8
739-112	Basic Anatomy and Physiology (Nursing)	4
924-101	Psychology - An Introduction	3
924-208	Developmental Psychology	3
941-215	Communications for Health Sciences	4

Semester 2 (26 hours/week)		Credits
702-200	Nursing Theory 2	8
702-201	Nursing Practice 2	14
739-200	Physiology and Pathophysiology 1	4

Semester 3 (27 hours/week)		Credits
702-300	Nursing Theory 3	7
702-301	Nursing Practice 3	14
739-300	Physiology and Pathophysiology 2	3
923-101	Introductory Sociology	3

Semester 4 (25 hours/week)		Credits
702-400	Nursing Theory 4	6
702-401	Nursing Practice 4	14
739-400	Physiology and Pathophysiology 3	2
	Elective	3

Semester 5 (28 hours/week)		Credits
702-500	Nursing Theory 5 (Wks. 1-8)	3
702-501	Nursing Practice 5	7
739-500	Physiology and Pathophysiology 4 (Wks. 1-8)	1
702-502	Leadership in Nursing	3
702-503	The Nurse as a Leader	11
702-504	Computer Applications in Health Care (Applied)	3

Semester 6 (37.5 hours/week)		Credits
702-600	Pre-Graduate Theory	2
702-601	Pre-Graduate Practice	35.5

Pharmacy Assistant

North Campus

Two semesters starting September and six weeks in the spring

This program is also available part-time and would take approximately 2 1/2 years to complete.

The Health Sciences Division has developed this program in cooperation with the Ontario College of Pharmacists, to train technical personnel to assist registered pharmacists in both community and hospital practice in the province of Ontario.

In addition to vocational subjects, skills in communications and business methods such as retailing and typing will be developed. On-the-job practical experience in both community and a hospital pharmacy will be provided.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- grade 11 or 12 business and consumers mathematics, general level
- senior chemistry at the general level and one other senior science at the general level (biology or physics)
- pre-admission testing
- attendance at an orientation session
- health certificate (health history and physician's statement of health)

Interests and Skills

- strong sense of responsibility
- initiative within the limits of the job
- ability to work quickly without sacrificing accuracy and neatness
- clear and effective communication with customers, patients and colleagues

Job Opportunities

Qualified pharmacy assistants work in community and hospital pharmacies or clinics. Duties may involve dispensing, inventory control, records maintenance, typing, some cash register work and operation of computer terminals. With some experience, job opportunities expand to pharmaceutical representatives and possibly research laboratories and industry.

Curriculum

Semester 1 (25 hours/week)		Credits
941-215	Communications for Health Sciences	4
739-204	Introductory Human Physiology	4
266-081	Keyboarding (Intermediate)	4
733-108	Orientation to Pharmacy	4
733-106	Community Pharmacy Prescriptions	4
733-103	Pharmacy Science 1	4
733-107	Pharmaceutical Calculations 1	1

Semester 2 (24 hours/week)		Credits
241-016	Business Concepts for Pharmacy Assistants	4

Pharmacy Assistant (cont'd.)

739-108	Community Health	2
739-111	Microbiology	1
733-218	Pharmaceutical Calculations 2 *Pre-Req:* 733-107 Pharmaceutical Calculations 1	1
733-216	Hospital Pharmacy Procedures *Pre-Req:* 733-108 Orientation to Pharmacy	1
733-219	Interpersonal Skills for Pharmacy Personnel	2
733-209	Pharmacy Science 2 *Pre-Req:* 733-103 Pharmacy Science 1, 739-204 Introductory Human Physiology	5
733-213	Computer Prescription Records *Pre-Req:* 733-108 Orientation to Pharmacy, 733-106 Community Pharmacy Prescriptions	2
733-217	Hospital Pharmacy Dispensing *Pre-Req:* 733-106 Community Pharmacy Prescriptions, 733-107 Pharmaceutical Calculations 1	3
733-210	Aseptic Techniques *Pre-Req:* 733-218 Pharmaceutical Calculations 2, 739-111 Microbiology	2
739-103	First Aid & Accident Prevention	1

Spring Semester		Credits
733-214	Hospital Pharmacy Work Experience *Pre-Req:* 733-217 Hospital Pharmacy Dispensing, 733-216 Hospital Pharmacy Procedures, 733-210 Aseptic Techniques	3
733-215	Community Pharmacy Work Experience *Pre-Req:* 733-213 Computer Prescription Records	2

Post-Diploma Nursing

Osler Campus

Humber College offers a selection of carefully designed post-diploma programs and courses to registered nurses and nursing assistants. For further information on these post-diploma nursing programs and courses, please contact the Chairman, Continuing Education Nursing, Osler Campus, 249-8301, ext. 212. We publish a detailed brochure outlining the continuing education program and course opportunities. It includes the schedule for a full year and the course descriptions. For your copy, please call the above phone number.

Curriculum

For Registered Nurses:

- Operating Room Nursing
- Contemporary Obstetric Nursing
- Coronary Care Nursing
- Emergency Nursing
- Mental Health Nursing
- Neuroscience Nursing
- Occupational Health Nursing
- Respiratory Nursing
- Clinical Nursing
- Refresher Nursing

For Registered Nursing Assistants:

- Operating Room Nursing

RN Refresher

Osler Campus & Selected Metro Hospitals
One Semester-275 hours

(3-4 days/week over a 13 week period)

The Registered Nurse Refresher Program will prepare the returning nurse for work in acute-care, medical-surgical setting and long-term setting. The theory course is designed to review and update the nurse's knowledge and skills to acute and long-term care nursing concepts, and to assist the returning nurse to develop a beginning competency in dealing with age-related health and social problems of the elderly. The clinical component allows the student the opportunity to apply theory to practice and to ensure the development and safe practice of nursing skills. The preceptorship model of clinical supervision will be implemented.

NOTE: This program will not meet the needs of graduate nurses requiring a course for RN Examination Review.

Admission Requirements

- mandatory proof of current registration as a Registered Nurse in Ontario
  OR
- a letter of eligibility from the College of Nurses of Ontario

Job Opportunities

The returning nurse will be prepared for work in the acute-care, medical-surgical setting or the long term care setting.

Curriculum

Semester		Credits
769-801	RN Refresher Theory/Laboratory Practice (100 hours)	6

RN Refresher (cont'd.)

769-804	RN Refresher Clinical Practice (175 hours)	11

RNA Operating Room Nursing

Osler Campus & Selected Metro Hospitals
480 hours (5 days/week over 16 weeks)

This post-diploma program, developed for Registered Nursing Assistants, has been designed to assist the student to acquire knowledge, understand technical skills, and learn attitudes necessary to function competently as a technical assistant in surgery and to provide nursing care to patients undergoing surgery.

Theoretical instruction, demonstrations, and related supervised clinical practice is provided in selected hospitals. Nursing and surgical content, as well as supporting content from the physical and social sciences, provide the theoretical framework for the concurrent practical experience which the student receives in a variety of selected surgical situations.

Admission Requirements
- proof of current registration as a Registered Nursing Assistant in Ontario
- pre-admission testing
- information sheet
- medical certificate of health

Curriculum

715-102	RNA Operating Room Theory	8
715-104	RNA Operating Room Lab	18
739-104	Anatomy and Physiology (RNA-OR)	2
934-103	Human Relations (RNA-OR)	2

Working With The Aged (Post-Certificate)

North Campus

This is a certificate program designed for individuals working or interested in working with the elderly. Similar to the post-diploma program, it provides a less intensive classroom and practical experience and can be completed in three semesters.

Curriculum

Compulsory:

		Credits
784-801	Aging: the Process	3
784-803	Dimensions of Communication	2
784-802	Aging: the Person and Society	3
784-806	Field Experience (Individual)	2
	and one of	
784-805	Field Experience (Institutional)	2
	OR	
784-804	Field Experience (Community)	2
781-815	Introduction to Gerontology	1

Electives:

		Credits
781-808	Principles & Practices of Group Work	2
781-809	Principles and Methods of Motivation and Reactivation	2
781-805	Independent Study Project	3
781-811	Conference/Workshop Attendance	2
781-814	Service Provision & The Elderly Client	2

Working With The Aged (Specialist)

North Campus

This is a certificate program offered to Registered Nursing Assistants wishing to further their education in aging. It shares the first three courses with the Basic Working With the Aged Program, with three additional specialized courses for the R.N.A.

Admission Requirements
- Registered Nursing Assistant with Medication Course completed
- an interview is held with each applicant

Curriculum

		Credits
784-801	Aging: the Process	3
784-803	Dimensions of Communication	2
784-802	Aging: the Person and Society	3
784-806	Field Experience (Individual)	2
	and one of	

Working With The Aged (Specialist) (cont'd.)

784-805	Field Experience (Institutional)	2
	OR	
784-804	Field Experience (Community)	2
784-808	Leadership and Management Skills for the R.N.A.	3
784-809	Client Assessment and Intervention Planning	2
784-810	Psychological Disorders and Interventions	3

Course Descriptions

Abused Child 792-108
Child abuse has become a serious problem in our society. This course will focus on some of the common reasons why it occurs. We will also discuss the signs that teachers can look for when they suspect abuse and what the responses should be.

Administrative Procedures (E.C.E.) 791-421
Students will become familiar with the basic principles and procedures of administering a nursery school or day care centre. Special attention is given to the requirements of the Day Nurseries Act. A hypothetical day care centre will be created and procedures, problems and concerns common to the set up of new schools will be explored.

Administrative Procedures (E.C.E.D.H.) 792-421
Administering Day Care and Preschool programs is the focus of this course. Different areas of administrative responsibility and practical information to determine effective management practices are highlighted by a thorough investigation into the Day Nurseries Act. Students will be exposed to an understanding of administrative tasks, functions and issues.

Advocacy in the Community 792-428
The focus for this course will be to help students understand their role as an agent of change. Students will explore ways to help children and their families achieve a life of the highest possible quality. The concept of advocacy as a form of social action to achieve access, public awareness and resources will be investigated. A number of advocacy techniques will be discussed.

Advocacy in the School and Community 799-807
This course explores and examines methods of working with preschool children with special needs in the community, home and school. Students will learn to be an effective resource consultant to classroom teachers; establish priorities and coordinate programs in the home and school; support parents in handling and overcoming difficulties; and, develop liaisons with other agencies serving the family.

The course assignments will involve work with children, their families, teachers and other professionals. Each student will be responsible for locating appropriate families and obtaining permission to work with them.

After-school Programming for 6-10 Year Olds 793-801
Many day care centres now provide after-school care for the school-age child. The skills and needs of this age group differ from those of the preschool child. This course will focus on the kinds of activities that would interest the child and aid him in his regular school program. Included are activities that deal with fine and gross motor abilities, social games and intellectual games.

Aging: the Person and Society 784-802
This course will provide an introduction to the social and psychological processes pertinent to the aged. From the perspective of normal development, this course will also examine problems most commonly encountered in relation to the aged. Interventions appropriate to the situation will also be discussed, as will preventive measures. Advocacy, access to service, political/economic resources, and housing will be examined.

Aging: the Process 784-801
This course will provide an introduction to the study of aging. It will, in broad terms, define characteristics of the elderly and examine attitudes and approaches toward this group. The holistic concept will be introduced, as will the concepts of wellness and health promotion. From this perspective, concepts of rehabilitation will also be discussed.

The second section of this course will deal with the biological aspects of aging. Distinctions between normal and pathological conditions will be discussed. Age-related changes in activity and nutrition will be examined, as will changes in the metabolism of medication.

The final section of this course will deal with specific pathological conditions and their various treatment methods.

Ambulance Maintenance, Operation & Safety 731-112
This course will concentrate on vehicular equipment, operations and environmental care. An awareness of possible problems and their appropriate preventive measures is essential for successful patient transport.

Ambulance Service 1 731-110
This course provides the student with background knowledge in areas of administration, radio communication, legislation, and operating procedures.

Ambulance Service 2 731-213
This course provides practical third-person observer experience in an ambulance service. Students will observe, participate in and analyse emergency situations which will form a basis for their professional practice in the future.

Anatomy and Physiology (RNA-OR) 739-104
Content is planned around body structure; dynamics and functions; and the traumatic and pathological processes calling for surgical treatment. This helps the student to understand the rationale underlying care and cure processes.

Applications in Emergency Patient Care 731-505
This course involves a continuation of the field-placement in the ambulance service. This will allow the student additional exposure to emergency patient care settings and refinement of practical skills.

Aseptic Techniques 733-210
Practical experience will be gained in the preparation of various classes of parenteral products. Emphasis in this course is on the development of techniques, accuracy and strict adherence to protocol rather than speed.

Basic Anatomy and Physiology (Nursing) 739-112
This course required for Nursing and Nursing Assistant programs in the Health Sciences Division is designed for the student with limited background in the area. Structure and function of the human body will be discussed to provide a background which will enable the student to understand the basic concepts of health and disease processes.

Basic Keyboarding 288-052
The student will receive instruction in basic alpha-numeric keyboarding techniques and the preparation of typewritten communications associated with the specific program of study. Some topics may include microcomputer applications where facilities are available.

Business Concepts for Pharmacy Assistants 241-016
Specifically developed for pharmacy technicians, this course is intended to provide the future hospital or retail store technicians with basic knowledge of business procedures.

Cell Physiology 732-209
Cell Physiology will familiarize the student with various chemicals utilized in embalming, the physiological principles which apply to the movement through cell membranes, and the effects of chemicals found in embalming solutions on cellular constituents.

Child in the Family 791-317
This is a study of the many aspects of parent-child relationships within the various patterns in which families are organized. These relationships to the development of the child as an individual will be analyzed and discussed. This knowledge will be used by the students in their professional approach to assist the parents in their care as well as in understanding the children themselves.

Client Assessment and Intervention Planning 784-809
This course will focus on the process of client assessment and the planning of intervention. Situations applicable to both community and institutional settings will be discussed. From the perspective of maintenance of client autonomy and participation in the planning of intervention, various specific conditions will be discussed. Palliative care, human rights, and ethnicity are among the topics to be examined.

Cognitive Development: Theory & Practical Applications in Early Childhood 793-802
This course is designed to provide teachers with current thinking on cognitive development. The major emphasis will be the work of Jean Piaget and how his findings relate to the developing child. The course will develop a theoretical base and will then make a transfer to practice. The majority of class time will be spent

in developing approaches for implementation.

Community Field Experience 781-810

This field experience in a community setting will depend upon the student's area of employment/interest as well as an area of practice with which the student is unfamiliar. The student will be assigned to an agency advisor who will act as supervisor.

Community Health 759-108

This course is designed to give allied health students a better understanding of a concept of health as it relates to themselves and to the community. It focuses on a study of health and the delivery of health care as it relates to local, provincial, and national organizations and settings. This course examines the roles of health workers and, through seminar sessions, helps students consider current health problems as well as preventative, curative, and rehabilitative aspects of health care delivery, as they pertain to both the individual and community.

Community Pharmacy Prescriptions 733-106

Students will be required to dispense medications that would be encountered in either a community pharmacy or in the outpatient (ambulatory) department in a hospital. Students will dispense approximately 200 prescriptions; stamping, typing labels, pricing, preparing forms and maintaining appropriate records.

Community Pharmacy Work Experience 733-215

Two weeks will be spent in field placement in a community pharmacy. Experience will be gained in all aspects of the role of the dispensary assistant. No remuneration is given for this period.

Community Resources (E.C.E.) 791-000

Students will get familiar with many community resources so that they may establish contact with an appropriate agency if and when their services are necessary. The students will become aware of what services are available within their community and how these services can be fully used.

Community Resources (E.C.E.D.H.) 791-315

The purpose of this course is to expose students to a variety of assessment tools and services used in the education of children with special needs from 0-12 years of age. As much as possible, this course will be practical in nature and geared to improving the teaching skills of the individual students and broadening their exposure to community resources including field trip sites.

Comparative Studies in Early Childhood 791-425

There are many different themes and methods dealing with how to teach children. Some of the older and newer theories will be discussed along with the reasons for their importance and their relationship to the method taught at Humber College.

Computer Applications in Health Care (Applied) 702-504

This course is designed to give the student a knowledge of computer concepts and experience in applying these concepts in the areas of clinical practice, education, research and management. The role of the nurse in relation to the design, selection and implementation of computer-based information systems will be addressed. Major issues related to the effect of technology on the individual society and the profession will also be discussed. Upon course completion, the student will be able to function in situations where technology plays a major role in the decision-making process.

Computer Prescription Records 733-213

Students will prepare a minimum of 185 prescription records using computerized pharmacy systems. In addition, third party prescription claim forms will be completed manually.

Conference/Workshop Attendance 781-811

Through this option, students are able to select their own learning experiences from the wide range of conferences, seminars, workshops and training programs pertinent to those working with the elderly. Students are required to attend 40 hours in one or more experiences.

Coordinating Resources 799-808

This course is designed to help students develop the skills necessary to independently conduct research into specific areas of children's special needs and to effectively communicate the results to others. The course will provide opportunities to integrate program content and to make plans for continued professional developments.

Creative Activities Workshop 1 791-103

This course will study the theories behind the creativity of young children, focussing on a variety of creative materials. It is designed to help the student plan and establish appropriate stimulating activities for all types of preschool programs. This should ensure a healthy learning environment for the development of the whole child.

Classes will offer the opportunity to learn theory, exchange ideas and practise skills in a workshop environment.

Creative Activities Workshop 2 791-203

Refer to course description for Creative Activities Workshop 1 (791-103).

Death in Our Society 782-810

This course will examine the many factors within the context of the North American society which influence attitudes and approaches to life threatening illness, death and grief. These factors include such areas as historical, religious, cultural and ethical issues, legal considerations, service delivery factors, parapsychological perspectives and personal values. A combination of lectures, large and small group discussions and experiential/learning opportunities will be used.

Death, Grief and Bereavement 782-803

This course will focus on the stresses, dynamics and reactions of those who are grieving following the death of someone important to them. Topics include the influence of circumstances preceding death (sudden death vs. long term illness, anticipated vs. unanticipated death) and factors related to the particular cause of death (e.g. suicide, homicide, accident). Sessions on acute grief and bereavement process will examine theories, research findings and clinical materials to normal and abnormal grief reactions, from the perspective of family members, friends, and caregivers.

Development of Home Programming 793-804

Increasing numbers of children with special needs are being integrated into regular day care settings. Whenever possible, programming in the centre is followed up by individual home programming. This course will provide the student with some of the knowledge and skills necessary for the home component.

Developmental Activities 1 792-318

This course is designed to put the developmental theory into its practical application. Programming for infants, children and adults with special needs is taught by a multi-faceted approach utilizing discussion, resource people and a hands on approach. The use of age appropriate activities in a therapeutic, educational or vocational mode is a major emphasis. Students will learn how to develop a program for individuals and groups at different functional levels in a variety of settings.

Developmental Activities 2 792-418

Refer to course description of Developmental Activities 1 (792-318).

Developmentally Appropriate Activities 793-803

The major areas of emphasis in this course will be on: reviewing knowledge of developmental sequence and the interdependence of prerequisite skills in all areas of development; assessing the present functioning level of children in each area of development; participation in workshops involving implementation of activities to enhance development of specific skills.

Dimensions of Communication 784-803

This course is designed with the goal of increasing the R.N.A.'s awareness of the communication process as it relates to self, the elderly, the aged, the kin/social network and the care team. It will focus on basic communication skills, barriers to the communications process, interaction with the kin/social network of an elder, as well as the study of relationships between and within the various disciplines serving the aged.

Dynamics of Communication with the Elderly and their Families 781-802

This course is designed to give students an understanding of four major areas within the communication process related to interacting with the elderly. The foci of the course will be on basic communication skills, barriers to the communication process, interaction with the family/social net-

work of an elder and the study of relationships between and within the disciplines working in the field of gerontology. Teaching methods will include lecture; discussion groups, guest speakers, audio-visual aids, simulation exercises, interviews and assignments.

Effective Supervision and Communication 793-805

The topics to be discussed include: budgeting, purchasing, scheduling, interviewing and assessing staff, in-service training and professional development.

Elements of Human Behaviour 1 792-112

This course is designed to introduce students to the basic concepts involved in the study of psychology in general and human behaviour specifically. Particular aspects of behaviour are studied to enable the student to understand the patterns within the range of 'normal'.

Elements of Human Behaviour 2 792-212

Refer to course description of Elements of Human Behaviour 1 (792-112).

Embalming Lab 1 732-102

This course will introduce the student to a variety of techniques that may be utilized in embalming. Following major demonstrations, the students will work in small groups for embalming practice. (Due to the nature of the situation, this is a non-timetabled event--students are withdrawn from regular classes at least twice for this experience. Students are responsible to obtain material from missed classes.)

From the small group practice, students will prepare and present their lab reports in class. Hypothetical cases will also be used.

Embalming Lab 2 732-202

This course is a continuation of the practice and approach used in Embalming Lab 1. During this course, students are required to incorporate the material from all related courses completed or in process.

Embalming Theory 1 732-101

This course will cover the responsibilities of funeral service personnel related to the technical aspects as well as the historical development and theoretical principles.

Embalming Theory 2 732-212

Embalming Theory 2 will expand on the Embalming Theory 1. Disease processes and their influence on embalming procedures will be examined in order for the student, after consideration of the theory, to select the most appropriate procedure to follow.

Emergency Patient Care Lab 1 731-116

This course will provide students with practical experience in a number of chronic care settings. This clinical is designed so the students can use the theory studied in Emergency Patient Care 1 and apply it to basic patient care skills.

Emergency Patient Care Lab 2 731-210

This clinical allows students to learn of the many hospital areas and how to care for patients, especially in acute and emergency situations.

Emergency Patient Care Seminar 731-205

This course is offered concurrently with Emergency Patient Care 2 and will refine practical skills, assessment and treatment techniques necessary for adequate patient care.

Emergency Patient Care 1 731-115

This course introduces the student to the basic principles and skills which form the basis of pre-hospital patient care. Topics covered include: lifting and transfer techniques, patient assessment, fluid, electrolyte and acid-base balance/imbalance, shock, oxygen therapy and airway disorders.

Emergency Patient Care 2 731-109

Emphasis in this course is placed on the development of an understanding of disease processes and trauma, their basic pathophysiological features, their clinical manifestations and management in the pre-hospital setting.

Topics covered include respiratory and cardiovascular disorders, neurological and metabolic disorders, musculo-skeletal injuries, environmental disorders, emergency child-birth, neonatal and pediatric disorders.

Ethical Issues in Health Care 712-208

This course covers a survey of the major health issues which will currently, or in the future, pose serious ethical and moral questions to health care workers, as well as to the community at large. By participation in class lectures and discussions, as well as by completion of readings and assignments, the student will be introduced to the process of identifying problems and clarifying values.

Family Dynamics 792-426

This course will deal with the complexities of family relationships. The role of mother, father and child will be discussed as well as the changing concept of family in today's society. Families with special needs and their problems and pressures will also be covered.

Field Experience (Community) 784-804

The field experience offers an opportunity to apply knowledge gained through class. Students are required to complete 60 hours in two distinct placements; one with an aged individual; the other in a community or institutional setting as is appropriate to the student.

Field Experience (Individual) 784-806

Refer to course description for Field Experience 1 (784-804).

Field Experience (Institutional) 784-805

Refer to course description for Field Experience 1 (784-804).

Field Placement 1 782-811

This course consists of supervised practical experience in providing support and assistance to two or more seriously ill individuals and/or their family members(s). Details regarding the choice, procedures and objectives of each student's field assignments will be decided at the outset of the course by joint agreement of the course instructors, the student, and the field supervisor (who will either be supplied by the student's work setting or by Humber College).

All students will be required to present case reviews during the case review sessions scheduled in Helping the Critically Ill and Their Families. Course instructors will provide individual case supervision to students as required.

Field Placement 2 782-807

This course consists of supervised practical experience in providing support and assistance to one or more bereaved persons, their family member(s) and/or concerned caregivers. After obtaining agreement from the course instructor and the field supervisor, the student will carry out a component of practical experience in the area of providing support and assistance to one or more of the above persons. The field experience will consist of approximately eight hours of personal interaction and the writing of process recordings of those interactions, as well as at least three consultations with the designated field supervisor. Case review sessions will be scheduled at regular intervals and all students will be asked to lead discussions on various aspects of their field experiences. Course instructors will provide students with individual case supervision as required.

Field Practice 1 791-107

The student will spend one full day each week in a Nursery School or Day Care Centre setting under supervision. The student will also do a one week block placement in one of the Humber lab/demonstration facilities each semester.

Field Practice 2 791-207

Refer to course description for Field Practice 1 (791-107).

Field Practice 3 791-307

In this course, a student will spend two days a week working in the community. One of these placements will be in a Metro Toronto Day Care, the other may be in a special setting. In addition, one week each semester will be spent in the Humber College Day Care, Humber Child Development Centre or the Humber Woodbine Day Care Centre.

Field Practice 4 791-407

Refer to course description of Field Practice 3 (791-307).

Field Practicum 1 799-803

The student will be helped to integrate theory and practice by working in an integrated setting for 105 hours of supervised field placement. Students will observe and analyse the role of the resource teacher and work as a team member with staff to assess, plan, implement and evaluate Individual Development Plans.

Field Practicum 2 799-806

Students will be helped to integrate theory and practice by working--over an extended period of time--with young children and their families for a total of 105 hours of supervised placement. Minimum placement time will be twelve weeks. Students will prepare, implement and evaluate

long-term individual developmental plans using input from families, staff and other professionals; help families meet their special needs throughout this long-term placement; and demonstrate, through home visits and professional consultants, the ability to integrate individual developmental plans with the family's perspective.

Field Practicum 3 799-809

The student will integrate theory and practice by applying the cumulative skills from this program. This will involve working as a member of the team, demonstrating leadership, problem-solving abilities and consultative skills. This field practice will be an opportunity for students to work more intensively in an area of special interest.

Field Work 1 792-102

Students will spend one full day each week in a day care or nursery school setting, under supervision. The students will also do a one week block placement in one of the Humber lab/demonstration facilities each semester.

Field Work 2 792-202

Refer to course description of Field Work 1 (792-102).

Field Work 3 792-302

The Field Work consists of exposure in a variety of settings including Nursery Schools for children with mental retardation, facilities providing services to children with physical handicaps and emotional disturbances, as well as programs for infants with special needs and adults with severe to profound mental retardation. In some cases, there are exceptions and other placements are considered provided they address the needs of children with exceptionalities. Placements are done either two mornings per week, one full day per week, or one full day and one half-day per week, depending on the need of the placement. In addition, another component of this course involves block placements in the lab/demonstration schools at the college in Semester 3 and/or 4. Each block placement is one full week in length and the date of placement is determined by the administration or the faculty. (Students miss class during this time and are responsible for all notes, handouts, etc. given in class through a buddy-system.) This course is practical in nature and is one of the core courses of the program.

Field Work 4 792-402

Refer to course description of Field Work 3 (792-302).

Field Work 5 792-503

During May and June at the end of the first year, students will work in settings approved by the field coordinator to improve their teaching skills. This session will be spent with children who have special needs.

Field Work 6 792-603

During May and June, at the end of the second year, students will work in settings approved by the field coordinator to improve their teaching skills. This session will be spent with children who are not developmentally handicapped.

First Aid & Accident Prevention 759-103

This course will teach the student practical skills based on first aid principles and standardized procedures related to emergency treatment of persons in accident situations. Consideration will be given to causes and prevention of accidents and accidental injuries. Upon successful completion of the course, the student will be awarded the St. John Ambulance Standard First Aid Certificate.

Helping the Bereaved 782-805

This course is designed to enhance skills in supporting and assisting those coping with bereavement, their families and other concerned caregivers. Theoretical material related to providing support, assistance and information to the bereaved, their families and other concerned caregivers will be combined with the supervised field placement course which will run concurrently. Three sessions will be devoted to case reviews carried out through the means of group supervision. Course topics include techniques of helping those who are grieving, methods of identifying high-risk individuals, referral to specialized resources, and the grief of caregivers.

Individual sessions will also examine such areas as acting as a source of support and assistance to others who are assisting the bereaved, methods of sharing information to raise the awareness of colleagues and laypersons about death and grief, and an overview of models methods of development and evaluation of programs assisting those dealing with illness or grief.

Helping the Critically Ill and Their Families 782-804

This course is designed to enhance skills in supporting and assisting those coping with life-threatening and/or terminal illness, their families and other concerned caregivers. Sessions dealing with theory related to clinical practice will be provided in conjunction with the supervised field placement course (782-811) which each student will carry out in his/her work setting. To expand the students' experiences beyond those available in individual professions and places of work, and to assist course instructors in their supervisory functions, at least three sessions, interspersed throughout the course will focus on case reviews. Using a combination of seminars, large and small group discussions and field work, such topics as theories of prevention and intervention, helping families and friends, the stresses of caregivers, the problems of working within service delivery systems, techniques of helping and identification of high risk individuals will be covered.

Hospital Pharmacy Dispensing 733-217

Practical experience in methods of drug distribution in institutions will be emphasized. Unit dose, traditional and individual patient prescription dispensing will be encountered as will profiling and associated record keeping.

Hospital Pharmacy Procedures 733-216

Students will receive instruction in hospital organization, departmental responsibilities, methods of inventory control, drug distribution and record keeping.

Hospital Pharmacy Work Experience 733-214

Students will be assigned to a hospital pharmacy where they will be exposed to methods of drug distribution, inventory control, various aspects of record keeping, out-patient dispensing and other facets of hospital pharmacy procedures.

Human Anatomy and Physiology, Intro. 759-101

This course, required for Allied Health programs in the Health Sciences Division, is designed for the student with limited background in this area. Structure and function of the human body will be discussed to provide a background which will enable the student to understand the basic concepts of health and of disease processes.

Human Growth & Development 1 792-114

This course is a study of growth and development from conception to adulthood. The course will examine basic developmental concepts and principles and their relation to the growth of the complete individual. Particular emphasis will be placed on normal development of the preschooler and school-aged child. Classes will consist of open discussion, lecture and films.

Human Growth & Development 2 792-214

Refer to course description for Human Growth & Development 1 (792-114).

Independent Study Project 781-805

Part 1

This course will be an independent learning project which is chosen by the students in collaboration with a faculty advisor. This project will enable the student to pursue an area of special interest to them relative to the field of Gerontology. This course provides each student an opportunity to share and learn from each other.

Part 2

Each student will be responsible to present in class his/her independent learning project for purposes of learning, discussion and evaluation by other class participants. All students will be expected to attend at least 50% of presentations.

Individual Development Planning 1 799-802

This course examines the preparation of individual developmental plans. Students will learn to assess individual children's development levels; utilize assessment tools appropriately; develop objective and specific developmental goals; teach goal-directed lessons; integrate the individual child into the group and evaluate progress.

Individual Field Experience 781-812

This component provides the student with the opportunity to develop an ongoing relationship with an elderly individual. Communication, sensitivity, and attitude are areas in which opportunities for development will be provided.

Individual Program Planning 791-321

This course will introduce students to the concept of individual program planning, its components, function and application. Functional assessments, program format and methods of data collection will be examined and critiqued. The main approach to this course is the lecture format.

Infant-Toddler Programming 793-806

This course will take a look at the types and quality of care available for infants and toddlers. Topics will include: age-appropriate programming and activities, discipline, indoor and outdoor equipment, physical exercise and nutrition.

Infant/Toddler Care 791-323

This course will take a look at the types and quality of care available for infants and toddlers. Topics will include: infant/toddler development; age-appropriate programming and activities; indoor and outdoor equipment; physical exercise; nutrition; legislated program requirements; the role of the teachers.

Institutional Field Experience 781-806

This field experience in a clinical setting (institutional setting) will depend upon the student's area of employment/interest as well as an area of practice with which the student is unfamiliar. The student will be assigned to a agency advisor who will act as supervisor.

Integration - Community-Based Services 793-807

This course will examine the concepts of normalization and integration in terms of their implications for the future development of children's services. The impact of the community itself will also be discussed. Time will also be spent on examining various approaches to the development of integrated educational programs and critical issues yet to be resolved in the overall movement towards integration. Classroom sessions will primarily be in the form of discussion in an attempt to provide input from as many perspectives as possible in order to allow students to become conversant with the major issues surrounding the development of children's services.

Integrative Seminar 1 (E.C.E.) 791-109

This course will be presented in individual small and large group sessions. During sessions, information about different settings, new ideas, and common experiences will be discussed with the field work supervisor. Various guests and audio visual materials may be used to help clarify this information.

Integrative Seminar 1 (E.C.E.D.H.) 792-104

This course will be presented in individual, small and large group sessions. During sessions, information about different settings, new ideas, and common experiences will be discussed with the field work supervisor. Various guests and audio visual materials may be used to help clarify this information.

Integrative Seminar 2 (E.C.E.) 791-209

Refer to course description for Integrative Seminar 1 (791-109).

Integrative Seminar 2 (E.C.E.D.H.) 792-204

Refer to course description of Integrative Seminar 1 (792-104).

Integrative Seminar 3 (E.C.E.) 791-309

This course will be presented in individual, small and large group sessions. During sessions, information about different settings, new ideas and common experiences will be discussed with the faculty field work supervisor. Various guests and audio visual materials may be used to help clarify this information.

Integrative Seminar 3 (E.C.E.D.H.) 792-304

This course will be presented in individual, small and large group sessions. During sessions, information about different settings, new ideas, and common experiences will be discussed with the field work supervisor. Various guest and audio visual materials may be used to help clarify this information.

Integrative Seminar 4 (E.C.E.) 791-409

Refer to course description of Integrative Seminar 3 (791-309).

Integrative Seminar 4 (E.C.E.D.H.) 792-404

Refer to course description of Integrative Seminar 3 (792-304).

Interpersonal Skills for Pharmacy Personnel 733-219

Students will learn to present ideas clearly, concisely and effectively. The course attempts to help students perfect their oral skills so they can perform efficiently in both vocational and social situations. Human relations and interpersonal communications will be stressed, and will include a component on dealing with patients and professionals in the work setting.

Introduction to Gerontology 781-815

This course will provide an introduction to the study of aging. It will, in broad terms, define characteristics of the elderly and examine attitudes and approaches toward them. The holistic concept will be introduced, as will the concepts of wellness and health promotion. From this perspective, concepts of rehabilitation will also be discussed, as well the role of the multidisciplinary team.

Introduction to Resource Teaching 799-801

This course will introduce students to the role and function of resource teachers, provide a philosophical basis for integration and normalization, examine the current legislation affecting the care and education of children with special needs, and explore modes of using community resources effectively.

Introductory Human Physiology 739-204

This course is designed to provide the student with an understanding of the functions of each of the body systems and how each system contributes to the maintenance of homeostasis.

Keyboarding (Intermediate) 266-081

Students will be given instruction in typing and office procedures. The emphasis will be on accuracy and attention to detail since these abilities are essential to the job.

Kindergarten/After School Care 791-427

Day care has expanded to include programs for children ages four to nine years. This course explores program ideas for these children.

Language Development in Young Children 793-808

This course will deal with language development and the role of the adult in promoting language skills. The student will study how the child acquires the ability to talk and what factors may hinder normal development. Topics will include: programming for good language development, recognition of language problems, when and where to refer children with problems, the teacher's role in speech therapy.

Leadership and Management Skills for the R.N.A. 784-808

This course will offer an in-depth examination of the role of the Registered Nursing Assistant as leader/manager in a variety of health care settings. From both community and institutional perspectives, various concepts of leadership will be examined. Objective and goal-setting, quality assurance, personnel and human relations are some of the topics examined and developed in this course.

Leadership in Nursing 702-502

This 8 week course is designed to prepare the student for the pre-graduate experience and to provide a foundation for her transition into the new graduate role. The course will focus on the responsibilities of a professional nurse in the broad areas of leadership and management. Content will address the image of nursing, conflict resolution, mentor relationships and strategies for planned changes. Students will also gain an awareness of selected issues in leadership and management through presentations and discussions.

Leadership Skills 781-807

This course is intended for those working in a variety of settings. The issues of leadership related to working within a health/human service team will be explored.

Learning Through Movement 793-809

Dealing with hows and whys of physical education for young children, this course will demonstrate the importance of physical education to psychological and motor development. Topics will include: movement exploration, rhythmic activities, exercises for physical fitness, homemade equipment, active games, perceptual--motor and cognitive learning.

Legal and Professional Issues for the Nursing Assistant **712-206**

The purpose of this course is to prepare the student for the legal and professional responsibilities of a Registered Nursing Assistant. In order to do this, the student must have an appreciation of the past, present and future trends and developments in nursing and health care delivery. Of primary importance to the RNA is a knowledge of legislation and organizations as each applies in Ontario.

Life Threatening Illness **782-802**

This course will examine a variety of theories, research findings, and clinical material related to all aspects of the illness process, from diagnosis through to death. Course content includes dynamics, reactions and theoretical constructs related to coping with life threatening and terminal illness, from the perspective of the patient, families, friends and caregivers. A number of sessions will be devoted to the practical problems which may arise because of serious illness, the roles and relationships of professional and non-professional helpers, and the approaches to palliative care.

Management Skills for Nurses **761-801**

This 30 hour course is designed for the nurse in a leadership position or the nurse contemplating a move to a management role. The nurse will be introduced to management and organizational skills particular to the health field. Emphasis will be placed on practical applications of current managerial principles for the first-line nursing manager.

Microbiology **739-111**

Students will be introduced to the basic concepts of microbiology. Special emphasis will be placed on the study of pathogenic organisms, infection control, methods of sterilization, and in the handling and the application of microbiology to the particular vocational settings.

Moral and Ethical Issues in Health **759-104**

This course covers a survey of major health issues which will currently, or in the future, pose serious ethical and moral questions to caring-profession people as well as to the community at large. The student will be introduced to the process of identifying problems and clarifying values of an ethical and moral nature in health issues.

Music and Creative Movement **793-810**

The major areas of emphasis will be: enhancing the student's repertoire in traditional early childhood music and in folk music that has been handed down over the years; practical sessions focusing on how the child expresses his thoughts and feelings through the use of his body.

Topics will include: use of space, body awareness, planning appropriate creative movement experiences for children. Wear comfortable clothing.

Normalization within the Community **792-216**

An examination of the community and its relationship to the person with special needs is the focus of this course. Existing agencies will be discussed in terms of their function, and how they fit into the overall structure of the community. The organization of government resources will also be examined. The concept of people with special needs being viewed as deviant will be discussed, as well as normalization and integration in terms of potential effect on the community at large, and people with developmental handicaps in particular. The students will be examining their own attitudes and beliefs towards people with mental retardation and handicaps.

Nursing Practice 1 **702-101**

This course is designed to assist the student to practise skills appropriate to the assessment of well individuals across the life span. The student will have the opportunity to practise Nursing skills which promote the wellness and maintain the health of the individual and his/her family. Community visits to Senior Citizen's residences, to kindergarten and day care centres are part of the course experience.

Nursing Practice 2 **702-201**

The clinical component of this course will afford students the opportunity to apply their acquired knowledge and skills in a variety of settings. Simple health problems encountered across the lifespan will be the focus for nursing intervention.

Nursing Practice 2 (NA) **712-207**

This clinical course will afford students the opportunity to apply acquired knowledge and skills in a variety of settings. Common health problems encountered across the lifespan will be the focus for nursing intervention. The dependent/independent/interdependent role of the Nursing Assistant will be emphasized.

Nursing Practice 3 **702-301**

The laboratory component of this course will afford students further opportunity to apply their acquired knowledge and skills in Psychiatric and Rehabilitative settings.

Nursing Practice 4 **702-401**

The laboratory component of this course will afford students a further opportunity to apply their acquired knowledge and skills in obstetrical and pediatric settings.

Nursing Practice 5 **702-501**

This course is designed to assist the students to practise the skills necessary in giving nursing care to clients across the lifespan in acute care facilities. The student will have opportunities to implement nursing measures that promote and restore optimal health for selected clients and their families.

Nursing Theory 1 **702-100**

This is a 16 week introductory course. Concepts and methodology will be introduced which are necessary for the student to employ the first stage of assessment in the individual's adapture responses through the lifespan.

The course consists of four units: Introduction to Nursing; Roy's Model; Adaptive Modes; Nursing Process.

Nursing Theory 2 **702-200**

This course is designed to build on the student's knowledge of the Nursing process. Health problems encountered across the lifespan have been selected for discussion and deal with Introductory Concepts, Gastro-Intestinal, Endocrine systems and special senses. Approaches to support or modify client responses will be explored. Professional, moral and ethical issues in nursing will be examined.

Nursing Theory 2 (NA) **712-200**

This course is designed to build on the student's knowledge of the Nursing process and its application. Common health problems encountered across the lifespan will be discussed related to long-term and short-term care settings. The role of the Nursing Assistants will be considered from two aspects: those tasks delegated by the Registered Nurse and those Nursing interventions which she/he performs independently.

Nursing Theory 3 **702-300**

This course deals with more complex health problems. Students will increase their repertoire of approaches and skills required to support adaptive responses for various age groups. Moral and ethical issues related to complex health problems will be explored. The focus will be mental health, psychopathology, neurological, musculoskeletal, and renal system. This course will be taught concurrently with Nursing Theory 4 and will be repeated in Semester 4.

Nursing Theory 4 **702-400**

This course is designed to introduce the student to the concepts of maternal and child health as well as problems related to the integumentary and respiratory systems. This course will be taught concurrently with Nursing Theory 3 and will be repeated in Semester 4.

Nursing Theory 5 (Wks. 1-8) **702-500**

This 8 week course is designed to further expand the student's knowledge of the nursing process developed through the Roy Adaptation Model. The student will continue to apply her/his knowledge from assessments of wellness to assessments of simple and complex health problems encountered across the lifespan as they related to specific disorders.

Nursing interventions to support or modify psychophysiological adaptation of clients with specific disorders will be discussed. Integrated throughout the discussion in each unit of study will be the legal, moral/ethical and professional issues that impact on the nurse's practice. This module focuses on health problems related to cardiovascular system and complex issues.

Nutrition & Health **791-111**

This course aims to familiarize the student with the importance of good nutrition and health in preschool centres. It is designed to develop an understanding for health regulations including basic first aid, childhood diseases, and general health standards as stated in The Day Nurseries Act. The course will also examine the nutritional needs of the young child and explore how a preschool environment can meet those needs.

Observing and Recording Children's Behaviour **791-215**

This course emphasizes objective observational techniques as

basic tools for assessing children and developing and evaluating their programs. Students will examine the philosophy behind the regular use of observations. Topics will include operational definitions and basic format of Individual Program Plans. A large component of the course will consist of laboratory sessions in the Humber College Day Care Centres.

Orientation to Funeral Service 1 732-106

This course is an introduction to Funeral Service as it is practised currently in North America. The history and evolution of the profession are examined. Customs are compared with those of other countries. Past, present and future roles of the funeral director are discussed. The students are introduced to funeral service procedures, practices and equipment which are common to most funeral home operations in Canada. Pertinent legislation is discussed. Students develop some specific skills regarding equipment use.

Orientation to Funeral Service 2 732-211

This course is a continuation of Orientation to Funeral Service 1. The students will continue to be introduced to funeral service procedures and practices as well as religious and fraternal rites and rituals. Current and future roles of the funeral director will be discussed in relationship to these practices. Students will be exposed to the theory of interviewing and will develop some basic skills regarding arrangement counselling.

Orientation to Pharmacy 733-108

This course will concentrate on the federal and provincial legislation which govern community pharmacy. Students will become familiar with the role of the dispensary assistant and the relationship with other professional personnel as well as customers. Students will be introduced to materials handling and purchasing procedures, clerical functions related to record keeping and third party prescription plans.

Parent-Teacher Relationships 791-423

A teacher's relationship with parents can be one of the most important yet demanding of his/her roles. To facilitate this relationship all areas of communication will be examined and discussed; for example, newsletters, parent meetings, bulletin boards and any other effective means of promoting parent education. Special emphasis will be placed on understanding parents of children with special needs. The course will also examine parent's rights, their role in the education of their children and the various support services developed to help meet the needs of parents.

Parent-Teacher Relationships 793-811

This course will be structured to provide advanced level training for teachers in relating to parents. It will assist the teacher in developing effective communication skills: better understanding of parents and their needs; planning and providing orientation and in-service training for participating parents; developing appropriate parent education programs.

Pathology 739-203

This course is an overview of the major diseases affecting the organ systems of the human body. Special attention will be paid to the pathological conditions existing at death, which might affect the embalming process. There will also be discussions on the roles of the pathologist and coroner and their interaction with the Funeral Director.

Pharmaceutical Calculations 1 733-107

This course includes a review of arithmetic manipulations and their application to pharmacy calculations. Emphasis will be placed on retail math, prescription pricing and medication calculations.

Pharmaceutical Calculations 2 733-218

This course concentrates on pharmaceutical calculations likely to be encountered in a hospital setting.

Pharmacy Science 1 733-103

This course presents an introduction to pharmaceutical dosage forms, and factors which influence the administration of drugs accurately, conveniently and safely by various routes. The laboratory component provides practical experience in the preparation of some dosage forms.

Pharmacy Science 2 733-209

Pharmacy Science 2 will introduce the student to the effects of drugs on the human body, to the pharmacological classification of drugs and their use in the treatment of various diseases.

Physical Education 731-208

This course will examine the purpose and methods of achieving cardio-respiratory endurance, flexibility, muscular strength and lifting abilities and tension-releasing exercises as they apply to the field of Ambulance Service. Students will also explore back problems and how these relate to exercise and lifting.

Physiology and Pathophysiology 1 739-200

This course introduces the basic concepts of homeostatis and disease. These concepts will be expanded upon to include the adaptation of the Gastro-Intestinal, Endocrine systems and special senses.

Physiology and Pathophysiology 2 739-300

This course deals with the physiology and pathophysiology of the neurological, musculoskeletal and renal systems.

Physiology and Pathophysiology 3 739-400

This course deals with the physiology and pathophysiology of the reproductive, respiratory and integumentary systems.

Physiology and Pathophysiology 4 (Wks. 1-8) 739-500

This course deals with the physiology and pathophysiology of the cardiovascular system.

Pre-Graduate Experience 712-209

The pre-graduate experience is a seven (7) week course to facilitate the transition of the student to the graduate Nursing Assistant role.

The pre-graduate experience is designed to provide the student with an opportunity to perform as a contributing team member, consolidating the knowledge and skills of all previous courses and life experiences in the practical administration of patient care in acute care and/or long term care settings. Throughout this experience, emphasis will be placed on the student's application of the Nursing Process in the promotion, maintenance and restoration of health as a member of the Nursing team under the direction of a Registered Nurse.

Upon completion of this concentrated clinical experience, it is expected that the student's role will closely resemble the expectations of the graduate Nursing Assistant as delineated by the standards of Nursing Practice of the College of Nurses of Ontario.

Pre-Graduate Practice 702-4

The pre-graduate experience a course designed to facilitate transition of the student to graduate nurse role. The pre-graduate experience will provide for synthesis and consolidation previous learning, and opportunities for increasing judgement and independence in a work experience. It will also provide experience in the application of the nursing process in the prevention of illness, in the promotion, maintenance and restoration of the health of individuals of all ages, and their families. Opportunity will be provided within the team framework to exercise leadership skills and technique.

Eight (8) consecutive weeks will be spent in an acute medical-surgical unit in a general hospital and the remaining time will allow for some students to be exposed and to gain experience in a special care area. The experience will include time on the three to eight duty with possible experience within the twelve-hour shift framework. Weekend experience will also be incorporated. The experience will provide for the student to function independently the teacher and under the supervision of the nursing service staff.

Pre-Graduate Theory 702-53

Nursing Theory is the initial phase of the fifteen (15) week pre-graduate course designed to facilitate the transition of the student nurse to the graduate nurse role. Leadership skills and the team approach to patient care will be emphasized.

Through pre-tests, the student will have an opportunity to assess his/her knowledge and preparedness in dealing with patient care situations in relation to concepts and principles outlined in the College of Nursing Blueprint for Nursing.

Principles & Practices of Group Work 781-[illegible]

This course will examine the structures and process of group work as it relates to the client. Particular emphasis will be paid to the dynamics of group formation, maintenance and development.

Principles and Methods of Motivation and Reactivation 781-[illegible]

This course is designed to help the student develop lifestyle

...sistent programs with the elderly. It is a practical course that emphasizes the need for mobility and activity to maintain the optimum level of health. In previous courses the student will have studied the theories of wellness, motivation and reactivation. This course includes a guide for assessing activity; planning programs for activity; activities; evaluation of program effectiveness.

Program Planning and Administration 792-320

Examination of various program methodologies used for developing group and individual programs will be the focus here. Emphasis will be placed on learning all components of individual program planning and developing functional formats for writing up, evaluating and measuring the program. Students will learn to prioritize behavioural objectives and to evaluate the effectiveness of programs.

Psychological Disorders and Interventions 784-810

This course will provide an extensive examination of the various psychological disorders affecting the older adult. Emphasis will be placed on creative interventions appropriate to the condition as well as maximizing the use of the resources in the setting in which the Registered Nursing Assistant practises. Ethical issues in the provision of service, advocacy, and the role of psychotropic medications and their implications will also be examined.

Psychology - Applied 2 A.E.C. 924-119

The primary emphasis in this course is abnormal behavioural patterns that the ambulance officer will likely be exposed to in emergency situations.

Psychology of Infancy & Early Childhood 1 791-113

This course is a study of the interaction of a child's heredity and his environment as they influence his development from conception to age six. The general areas studied include physical, emotional, social and cognitive development. Attention will be given to methods which encourage this development to achieve maximum involvement in a purposeful life.

Psychology of Infancy & Early Childhood 2 791-213

Refer to course description of Psychology of Infancy & Early Childhood 1 (791-113).

Psychology of Later Childhood & Adolescence 1 791-329

In this two-semester course, the student will study the school age child; the adolescent and young adult in the area of cognitive, social and emotional growth and development.

Psychology of Later Childhood & Adolescence 2 791-429

Refer to course description of Psychology of Later Childhood & Adolescence 1 (791-329).

Rescue Procedures 731-209

This course discusses all components of vehicle rescue and patient extrication. Theory and practical use of equipment and rescue techniques will be involved throughout this course.

Restorative Art 732-213

The general topic of Restorative Art will be covered in each of its classifications as follows: reduction of swelling; treatment of emaciation; treatment of fractures and lacerations; treatment of erosion; cosmetics--professional and commercial. This course will include theory, demonstration and practice in simulated conditions.

Students will develop some specific skills in each of the previously mentioned areas.

Rhymes and Stories for the Very Young 793-813

This course is intended for Early Childhood Educators, who want to build a repertoire of nursery lore that can be produced at apt moments without the benefit of a book. Students will learn a multitude of rhymes and chants as well as folk tales.

The workshop will offer an opportunity to experience the value of storytelling, both as an art and as a dynamic activity that can foster many developmental areas.

RN Refresher Clinical Practice (175 hours) 769-804

The clinical component of the program allows the student the opportunity to practise and apply the knowledge and skills learned in the RN Refresher Theory/Lab Practice course both in acute and long-term settings. This component will be integrated with the theory component in order to facilitate the application of theory to practise; and to ensure the development and safe practise of nursing skills, and to allow the student an opportunity to bring back concerns from the clinical area to the classroom for discussion. Each student will be required to complete 119 hours in the acute-care setting, i.e. 17 8-hr. shifts over 4 weeks, and 56 hours in the long-term care setting, i.e. 8-8 hr. shifts over 2 weeks, in order to finish the program.

During the clinical experience the student will apply the nursing process to the care of patients with various problems. The planned experiences will be of increasing difficulty with the goal of enabling students to function at the level expected of a beginning graduate nurse. The student will be expected to seek learning opportunities to meet their own learning needs. Patient care conferences will be held with either the staff members on the unit or with the preceptor. The preceptorship model of clinical supervision will be implemented.

RN Refresher Theory/Laboratory Practice (100 hours) 769-801

This course is designed to review and update the nurse's knowledge and skills related to acute and long-term care nursing concepts, and to assist the returning nurse to develop a beginning competency in dealing with age-related health and social problems of the elderly.

The course consists of 4 major areas of study; each area is referred to as a Module, as follows: Module 1 - Introduction - Bridge the Gap; Module 2 - Nursing Theory - Principles and Practice; Module 3 - Laboratory Practice; Module 4 - Trends in Health Care and the Nursing Profession.

RNA Operating Room Lab 715-104

The clinical component of the program consists of practical experience in operating rooms and other surgical settings, and provides opportunity for application of operating room theory and supporting knowledge. The major emphasis will be placed on the scrub nurse's role.

RNA Operating Room Theory 715-102

Operating Room Nursing Theory encompasses much of the knowledge needed for an Operating Room Nurse. It includes: principles and practices of asepsis, preparation for surgery and perioperative care of the patient during common operative procedures. Moral and ethical issues are highlighted.

Seminar on the Child with Special Needs 1 792-116

In this course, historical, traditional and emerging perspectives, issues, approaches and legislation to the field of special education will be the focus.

Seminar on the Child with Special Needs 3 792-310

This course explores a number of techniques/strategies to enhance performance in the field of early childhood education and special needs. Specific skills in observation and recording operant conditioning and task analysis will be emphasized.

Seminar on the Child with Special Needs 4 792-410

This course will utilize a survey approach to various syndromes. The causes and essential characteristics of each will be presented and students will examine the implications of this information with reference to appropriate programming. Students will also explore the philosophical issues involved in working with children who have these syndromes and their families. Specific issues and trends in the field of special needs will be explored.

Service Provision & The Elderly Client 781-814

This 30-hour course is designed to assist the student in obtaining a practical knowledge of what discharge planning is and what services can be provided for post-hospital patients. Emphasis will be placed upon the discharge planning process. The student is expected to participate in group discussion and complete assigned projects. Slides, films and guest lecturers will be utilized.

Small Business Mgmt. 251-007

This course was specifically developed for the Funeral Service professional. The course should provide the student with an overview of the purely business aspects of Funeral Service in sufficient depth to be of obvious and tangible value.

Teacher-Parent Involvement 792-322

Refer to course description of Parent-Teacher Relationships (791-423).

Teaching the Young Child 1 791-101

This course lays the foundation for all practical work with young children. In it, we will explore the philosophy of Early Childhood

Education, the teacher's role, the physical setting, the importance of routines and play, communication skills and methods of discipline.

Teaching the Young Child 2 791-201

Refer to course description for Teaching the Young Child 1 (791-101).

Techniques of Individual Programming 793-812

With the movement toward integration and the increased emphasis on individual programs for all children, this course is designed to introduce students to strategies involved in individual program planning. Topics include: functional assessment; goal setting and priorizing; method of instruction; models of instruction; measurement and evaluation.

The Aging Process 781-801

The first section of this course will deal with the biological aspects of aging. Distinctions between normal and pathological conditions will be discussed. Age-related changes in nutritional and physical activity requirements will be examined, as will changes in the metabolism of medication.

The second section of this course will deal with specific pathological conditions and their various treatment methods.

The Child with Special Needs 1 792-106

This course is designed to give students a background knowledge of children with special needs that they may encounter in a regular/-integrated/segregated preschool or day care setting. This overview will emphasize a positive approach to the field of special needs. To advocate for each child's right to attain full participation in community life and promote acceptance of all children will be highlighted. Teacher skills, characteristics and attitudes will be the focus.

The Child with Special Needs 2 792-206

The second semester is designed to familiarize the student with a variety of developmental disabilities such as Down's Syndrome, Cerebral Palsy, Spina Bifida and Epilepsy. Programming suggestions, guidelines and specific management techniques for these developmental disabilities will be emphasized. Teacher skills and attitudes will be a focus.

The Child with Special Needs 3 792-306

The course is designed to familiarize the student with a variety of developmental disabilities such as Mental Retardation, communication disorders, learning, visual, hearing, and emotional disabilities. Programming suggestions,guidelines and specific teaching techniques will be emphasized. Programming philosophies, including the commitment to normalization and the concept of integration will be investigated together with resources to assist in the review of teaching strategies.

The Child with Special Needs 4 792-406

This course is designed to familiarize the student with the role of the resource teacher in an integrated day nurseries setting. Using a case study approach, students will explore and examine the teacher's role in early identification of special needs, in making referrals to appropriate agencies, in analyzing assessment reports, in planning individual program plans, in acting as a liaison between home, school and various agencies. For the Early Childhood Education student, emphasis will be placed on working as a team member with the Resource teacher. For the Early Childhood Education for the Developmentally Handicapped student, emphasis will be placed on coordination and supporting parents. This will be reflected in the assignments and degree/complexity of disability in the case study approach of the lesson plans. A variety of developmental disabilities will be used that have not been previously discussed.

The Elderly: Individual & Social Perspectives 781-813

This course will provide an introduction to the social and psychological processes affecting the elderly. From the perspective of normal psychological and social development, this course will also examine problems most commonly encountered in relation to the elderly. Interventions appropriate to the situations will also be discussed, as will preventative measures. Among the topics to be covered are: advocacy, access to service, political/economic resources, housing, as well as factors affecting psychological functioning.

The Elderly: Policies and Issues 781-804

The course will provide a broad overview of government legislation in relation to services for seniors, examining the inter-relationships of selected Provincial Acts, their impact on policies and funding for Community Care Services and Long-Term Care Facilities.

It will interpret management concepts with foci on policies, goals and objectives. A number of ethical issues will be addressed to further the understanding of the psycho-social needs, and to develop an understanding of professional and organizational accountability.

Utilization of resources with a multi-disciplinary approach to service identification and planning will be emphasized.

The Nurse as a Leader 702-503

This course is designed to prepare the student for the pre-graduate clinical experience and to provide a beginning foundation for transition into the new graduate role.

The student will continue to practise and perfect her nursing skills in increasingly complex situations while giving care to clients and their families. Utilizing the nurse process, the student will be able to organize, priorize and implement care for increasing numbers of clients of varying dependency.

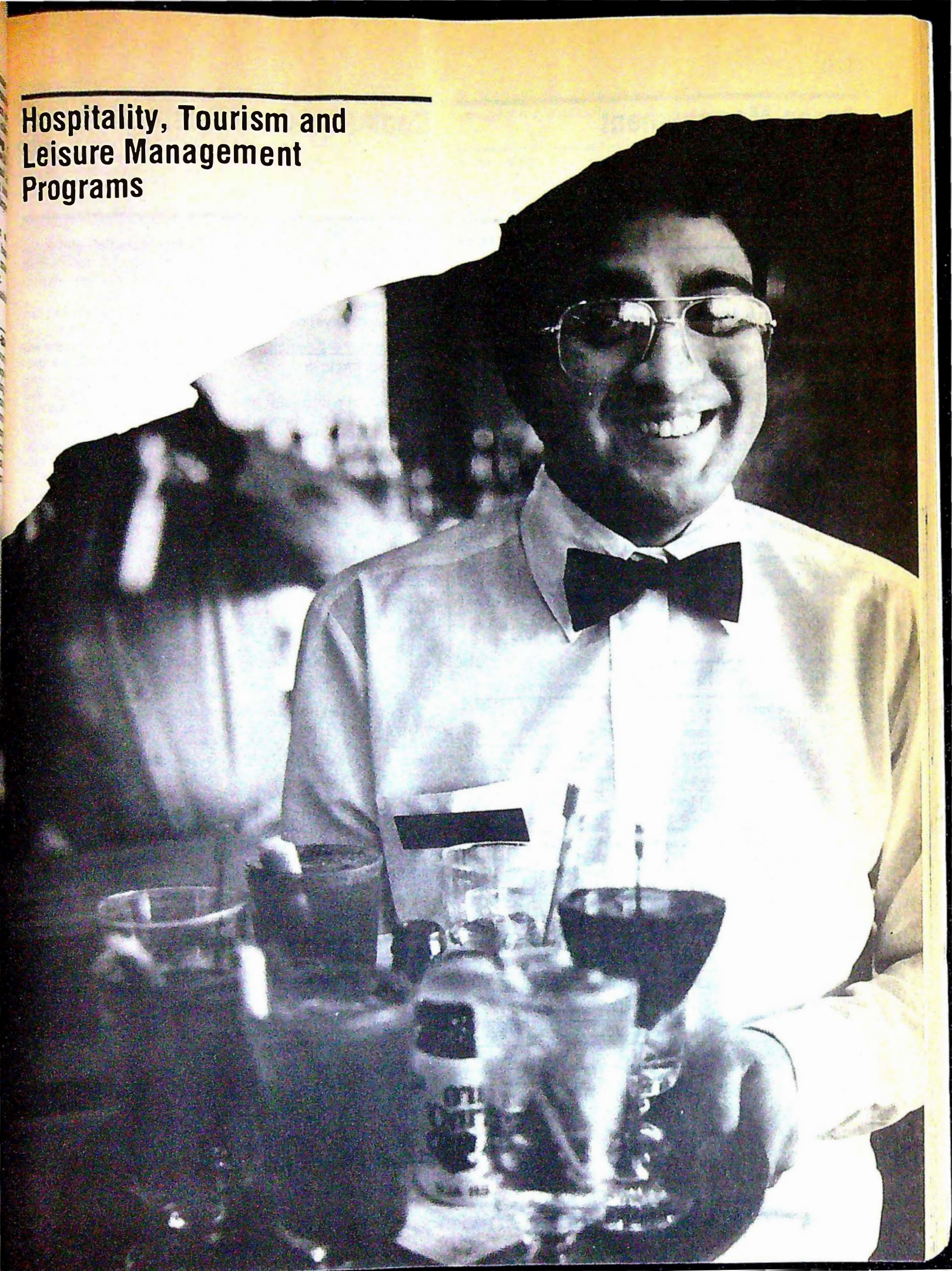
Additionally, the student will begin to observe and apply basic elements of leadership and management in the clinical setting.

Experience is provided in adult medical-surgical setting.

Working with Families 799-804

This course focuses on work with preschool children with special needs in the home setting. Students will learn to demonstrate empathy for, and provide support to families; help families accept and understand their own special needs; aid parents in finding and evaluating appropriate treatment for their children's special needs.

Hospitality, Tourism and Leisure Management Programs



Arena Management

North Campus

Three semesters (two of which are field work) starting in May

This program is designed to provide qualified graduates for certification as Arena Managers under legislation of the Province of Ontario. Management of an arena requires the skillful coordination of the functions of planning, purchasing, administration, refrigeration, promotion, programming and related public services. A combination of classroom and practical work will equip the participants with a broad range of training in the management skills in the complex operation of private and community arenas.

Admission Requirements

- two years of previous post secondary study in Recreation Leadership or two years of equivalent experience in the industry (3,000 hours minimum).

Job Opportunities

The employment rate is excellent, but most graduates enter the field in maintenance jobs or as arena attendants. After three to four years of field experience, advancement to management positions is possible. In a city arena with a $300,000 budget and five or six employees, a serious graduate could eventually earn a salary between $30,000 and $35,000.

Curriculum

Semester 1 (24 hours/week)		Credits
144-515	Structure and Finance - Arena Mgmt.	4
144-503	Program Scheduling 1 - Arena Mgmt.	2
221-001	Principles of Accounting	2
144-506	Refrigeration and Ice Making - Arena Mgmt.	4
144-512	Arena Construction, Design and Maintenance	
144-508	Concessions 1	2
144-509	Personnel Administration - Arena Mgmt.	2
144-514	Field Orientation 4 (for Recreation Leadership graduates)	4
	Communications 1 (for students with experience)	4
Semester 2 and 3		**Credits**
144-603	Work Experience	8

Cook (Cuisine) Apprentice

North Campus

Basic and Advanced Program

Each consists of 15 hours per week (2 days) for 30 weeks.

Programs begin in September

In the apprenticeship program the student attends an in-class session two days a week at Humber College while continuing to work for his/her employer the remainder of the week. This arrangement provides immediate benefits to both the student and the employer since the student is able to apply newly acquired skills and knowledge to his/her job each week.

The curriculum has been designed to be flexible and innovative without deviating from the requirements set by the Provincial Committee.

How to Register

Employers can register interested employees through the local Skills Development Office of the Ministry of Colleges and Universities.

A completed application form must be submitted along with proof of education transcripts and the registration fee to an Industrial Training Consultant at a local Branch Office. Applicants may also be required to submit documented evidence of previous experience in the field.

Once the applicant has met the above requirements and has been accepted, he/she will be asked to undertake a contract of apprenticeship with the Ministry of College and Universities. Only after the above process has been completed will an applicant be scheduled to attend the program at Humber College.

Admission Requirements

To be eligible for the program the applicant must be at least 16 years of age, have a grade 10 education or equivalent, be literate in English, and be currently employed in a commercial or institutional kitchen for a period of eight weeks prior to the commencement of the program. A scheduled meeting with program co-ordinator prior and after application to the Ministry of skills development office is strongly recommended.

Additional Costs

Textbooks and consumables will be supplied by Humber College. Students will be expected to provide their own uniforms and knives.

Curriculum

609-001	Sanitation Safety and Equipment - Basic
609-101	Sanitation Safety and Equipment - Advanced
609-004	Kitchen Management - Basic
609-104	Kitchen Management - Advanced
609-002	Practical Food Preparation - Basic
609-102	Practical Food Preparation - Advanced
609-003	Theory & Demo Food Preparation - Basic

Cook (Cuisine) Apprentice Program (cont'd.)

903-103 Theory & Demo Food Preparation - Advanced

Culinary Management

North Campus

Four semesters beginning in September Culinary Management Program

In this program you will receive basic and advanced theory and practical experience in professional food preparation and management control of food operations. Emphasis is placed on knowledge of foods, economy in food preparation, food sanitation and personal hygiene, control of quality and quantity of prepared food, portion control, planning and supervising food production enterprises, operational accounting, food and labour cost control, and production safety.

The aim of the Culinary Management Program is to prepare students who aspire to become cooks and who seek growth as, Commis de Cuisine, Chefs de Partie, Sous Chefs and Chefs de Cuisine.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 business and consumers mathematics, general level, and grade 12 English, general level, are highly recommended and may be taken into account for selection purposes

Interests and Skills

- You should be interested in a service-oriented career.
- You should have a good attitude towards team work and human relations skills. Have good health and stamina, be willing to work hard and variable hours.
- You should be interested in a leadership career and you must be prepared to accept rigid discipline, particularly as it relates to safety, sanitation, personal hygiene, and dress code in all classes.

Job Opportunities

As the industry expands there is a great demand for well-trained, creative cooks, knowledgeable not only in the preparation of fine French, International, and Canadian Cuisines, but also proficient in menu planning, purchasing, and in the supervision of kitchen staff.

There is a high demand for well-trained Culinary Management graduates in entry level positions in hotels, restaurants, resorts, industry, and related fields.

Profile of a Good Student

Professional Recognition:

a) Upon completion of four semesters (two academic years) of the Culinary Training program you will have qualified for the in-college portion of the Ontario Provincial Apprenticeship program for cooks. b) Upon successful completion of the Culinary Management Diploma Program and two years or (4000 industry hours), you will be qualified to write the Certificate of Qualification examinations set by the Ontario Ministry of Manpower for certification of Journeyman Cooks.

Curriculum

Refer to Semester 1 Common Core Program (Culinary Programs)

Semester 2	Credits
156-218 Pastry 1 *Pre-Req:* 156-118 Practical Baking	4
156-219 Practical Cuisine *Pre-Req:* 156-119 Food Production Practical	4
156-220 À la Carte Cuisine 1 *Pre-Req:* 156-120 À la Carte Short Order	7
156-222 Food and Labour Costing Concepts *Pre-Req:* 903-103 Math Upgrading if needed	2
156-223 Cuisine Theory *Pre-Req:* 156-123 Food Production Theory	2
Communications 2	4
Elective 1	3

Semester 3 (24 hours/week)	Credits
156-318 Pastry 2 *Pre-Req:* 156-218 Pastry 1	4
156-319 Gardemanger - Buffet *Pre-Req:* 156-219 Practical Cuisine	5
156-320 À la Carte Cuisine 2 *Pre-Req:* 156-220 À la Carte Cuisine 1	7
156-322 Menu Planning Concepts	2
156-323 Gardemanger Theory *Pre-Req:* 156-223 Cuisine Theory	2
156-321 Hotel Butchery	4
Elective 2	3

Semester 4 (22 hours/week)	Credits
156-418 Confectionary *Pre-Req:* 156-318 Pastry 2	4
156-419 Advanced Gardemanger *Pre-Req:* 156-319 Gardemanger - Buffet	5
156-420 Advanced À la Carte Cuisine *Pre-Req:* 156-320 À la Carte Cuisine 2	7
156-422 Food and Labour Cost Controls *Pre-Req:* 156-222 Food and Labour Costing Concepts	3
156-423 Culinary Dimensions	3
Elective 3	3
Interpersonal Communications Skills 2 *Pre-Req:* Interpersonal Communications Skills 1	2

Entry Level Cook Certificate

In this two-semester program we will prepare you for the basic culinary demands of the industry. Emphasis is on training in the practical and theoretical aspects of food production within industry guidelines.

The aim of the entry-level program is to prepare you for the minimum expectations of the industry, or to help you to make a choice between the variety of programs offered, such as Hotel Patissier, Culinary Management, Cuisiner Apprentice program and Hotel and Restaurant Management Program.

A new concept of "core programming" will ensure that all students in the Culinary Program will have the same basic training in the theory and practical aspects of the Culinary arts. Initially, all students will be admitted to the Culinary Certificate Program (2 semesters). This procedure will give the students the opportunity to explore the field before they make a choice as to which program to follow.

After the first semester you will be able to choose between the two year Culinary Management Diploma program, the one year Certificate program, the Hotel Patissier and the Hotel and Restaurant Management program.

Note: This program will be offered pending approval.

Curriculum

Common Core Program (Culinary Programs)

Semester 1		Credits
156-118	Practical Baking	4
156-119	Food Production Practical	4
156-120	À la Carte Short Order	7
155-121	Hospitality First Aid and Sanitation	2
156-123	Food Production Theory	2
	Communications 1 or Language Skills	4
	Interpersonal Communications Skills 1	2

Semester 2 (25 hours/week)		Credits
156-501	Larder Preparations	4
001-011	Food Production Practical 2	4
156-220	À la Carte Cuisine 1	7
156-502	Field Placement	8

Equestrian Coaching Diploma

North Campus

Two semesters beginning September

Upon completion of this program, students will take one of the Level 1 or Level 2 Equestrian Coaching examinations administered by the appropriate sports body. In order to take these examinations, students must hold Senior Membership cards in the Canadian Equestrian Federation which cost approximately $45.00 annually. Before taking the actual Coaching Examination (fee: $100.00), students will be required to take a Technical Clinic, also at a cost of $100.00, payable to the Canadian Equestrian Federation.

Admission Requirements

- a. successful completion of the Horse Care and Equine Skills Certificate Program with a minimum grade of 75% in English & Western Riding Skills 2

  OR

- b. equivalent life skills as detailed:

  1) must hold a current St. John's Ambulance General First Aid Certificate (or equivalent)

  2) achieve a minimum score of 65% on the Nelson Denny Reading Test

  3) have at least two year's work experience in the horse industry

  4) applicants for the English Coaching program must ride at the Western Rider Level 2 standard or above 6) applicants will be required to come to the Equine Centre for a riding and practical evaluation to confirm that they meet these skills levels

  7) applications for direct admission to semester 3 must be accompanied by an in-depth resume

Semesters 1 & 2 are common with Horse Care and Equine Skills Certificate Program.

Job Opportunities

Positions open to graduates include full and part-time teaching positions in private and public stables, competitive coaching and training (beginner and intermediate levels), free-lance teaching and pony club instruction. There are a considerable number of part-time positions available in the industry but the number of full-time positions is limited.

Curriculum

Semester 1		Credits
162-127	Basic Nutrition (Equine)	2
162-131	Driving & Breaking Skills 1	2
162-132	English & Western Riding Skills 1	3
162-133	Horse Industry 1	1
162-134	Practical Horse Care 1	4
162-135	Facility Operations 1	2
266-052	Basic Keyboarding	3
	Communications 1	4
	General Studies	3

Equestrian Coaching Diploma (cont'd.)

Semester 2		Credits
162-226	Horse Industry 2	1
162-227	Thoroughbred Racing Industry*	3
162-228	Practical Horse Care 2	3
162-229	Facility Operations 2	2
162-230	Basic Horse Health	2
162-231	Driving & Breaking Skills 2	1
162-232	English & Western Riding Skills 2 *Pre-Req:* 162-132 English & Western Riding Skills 1	3
759-103	First Aid & Accident Prevention	1
	Communications 2	4
	General Studies	3

*Includes a two-week Field Placement at a Thoroughbred racetrack

Semester 3		Credits
162-111	Instructional Theory	2
162-314	Anatomy & Physiology 1	2
162-324	Showing & Judging 1*	2
162-325	Equine Nutrition 1	1
162-326	Equine Sports Psychology	3
162-328	Equestrian Skills 1	6
934-101	Human Relations	
	General Studies	3

*Includes a ten-day Field Placement at the Royal Winter Fair

Semester 4		Credits
162-220	Theory of Coaching, Level 2	1
162-415	Anatomy & Physiology 2	2
162-428	Equestrian Skills 2	6
162-429	Coaching Awareness Theory	3
162-434	Showing & Judging 2	1
162-435	Nutrition 2	1
162-436	Equine Exercise Physiology	3
162-437	Teaching Skills*	2
	General Studies	3

*Includes a two-week in-house placement

Equine Management Diploma

North Campus

Building upon the skills taught in the Horse Care and Equine Skills Certificate Program or equivalent life skills, this program is designed to prepare students for entry-level positions in the management of show, breeding, training or racing stables.

Admission Requirements

- a. Successful completion of the Horse Care and Equine Skills Program
  OR
- b. Equivalent life skills as detailed below:

1) must hold a current St. John's Ambulance General First Aid Certificate (or higher)

2) have achieved a score of at least 65% on the Nelson Denny Reading Test

3) must have at least two year's work experience in the horse industry

Semesters 1 & 2 are common with the Horse Care and Equine Skills Certificate Program.

Job Opportunities

Racing operations, breeding farms, show stables, Western establishments and boarding and training operations as well as horse-related businesses are all potential areas of employment, offering positions in junior management.

Curriculum

Semester 1		Credits
162-127	Basic Nutrition (Equine)	2
162-131	Driving & Breaking Skills 1	2
162-132	English & Western Riding Skills 1	3
162-133	Horse Industry 1	1
162-134	Practical Horse Care 1	4
162-135	Facility Operations 1	2
266-052	Basic Keyboarding	3
	Communications 1	4
	General Studies	3

Semester 2		Credits
162-226	Horse Industry 2	1
162-227	Thoroughbred Racing Industry*	3
162-228	Practical Horse Care 2	3
162-229	Facility Operations 2	2
162-230	Basic Horse Health	2
162-231	Driving & Breaking Skills 2	1
162-232	English & Western Riding Skills 2 *Pre-Req:* 162-132 English & Western Riding Skills 1	3
759-103	First Aid & Accident Prevention	1
	Communications 2	4

Equine Management Diploma (cont'd.)

	General Studies	3

***Includes a two-week Field Placement at a Thoroughbred racetrack**

Semester 3		Credits
162-314	Anatomy & Physiology 1	2
162-319	Riding Skills 1	3
162-324	Showing & Judging 1*	2
162-325	Equine Nutrition 1	1
162-430	Management Techniques 1	3
221-001	Principles of Accounting	2
934-101	Human Relations	
	General Studies	3
	General Studies	3

***Includes a ten-day Field Placement at the Royal Winter Fair**

Semester 4		Credits
162-415	Anatomy & Physiology 2	2
162-419	Riding Skills 2	3
162-431	Management Techniques 2*	10
162-434	Showing & Judging 2	1
162-435	Nutrition 2	1
479-126	Computer Systems, Intro.	3

***Includes two two-week Field Placements; one at a breeding farm and the other at a training stable**

Food Industry Technician

North Campus

Four semesters beginning September

This program prepares students for jobs in many areas of the food industry which develops marketable forms of food. The emphasis is on an experimental approach to food development, a knowledge of its components, ingredients and nutrients, as well as sensory evaluation of the product, product development and food marketing.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level or equivalent, or mature student status
- senior chemistry and English at the general level are recommended

Interests and Skills

- ability to make decisions and assume responsibility
- capacity to relate one subject to another and put theory into practice
- ability to work well with people

Job Opportunities

The employment rate of this program's graduates is good. The food industry provides jobs in quality control, product development, production line supervision, product surveys and marketing promotion. Work and projects in product testing laboratories are organized through a team approach. With experience graduates can improve their position through responsible application to their job and continued interest in courses recommended by their employers.

Curriculum

Semester 1 (24 hours/week)		Credits
115-115	Science of Food 1	4
115-113	Nutrition 1	3
115-114	Sensory Evaluation	3
340-152	Introduction to Chemistry of Foods	3
903-101	Mathematics for Food Technicians	4
	Communications 1	4
	General Studies	3

Semester 2(24 hours/week)		Credits
115-214	Science of Food 2 *Pre-Req:* 115-115 Science of Food 1	4
115-213	Nutrition 2 *Pre-Req:* 115-113 Nutrition 1	3
115-215	Research Techniques	4
115-313	Field Practice 1 (Food Industry Technician)	2
340-139	Food Chemistry 1 *Pre-Req:* 340-152 Introduction to Chemistry of Foods	4
	Communications 2	4
	General Studies	3

Semester 3 (24 hours/week)		Credits
115-317	Quality Control	4
115-318	Ingredient Technology	4
115-310	Food Marketing 1	4
115-425	Food Packaging	
115-316	Field Practice 2 (Food Industry Technician)	2
340-141	Microbiology	3
	General Studies	3

Semester 4 (23 hours/week)		Credits
115-422	Field Practice 3 (Food Industry Technician)	2
115-423	Product Development	4
115-424	Food Processing	4
115-413	Food Marketing 2 *Pre-Req:* 115-310 Food Marketing 1	4

Food Industry Technician (cont'd.)

115-421	Supervisory Techniques	3
340-140	Food Chemistry 2 *Pre-Req:* 340-139 Food Chemistry 1	3
	General Studies	3
	Internship 4 weeks (one 4-week field placement)	6

Horse Care and Equine Skills Certificate

North Campus

Have you ever thought of preparing for a career with horses? If so, you might seriously consider our two-semester Horse Care and Equine Skills Certificate Program. This program is designed to offer you a number of options within the horse industry such as obtaining employment upon graduation as a skilled stable attendant or continuing your education in our Equestrian coaching or Equine Management programs. In this program you will learn the rudiments of equine nutrition and horse health and such necessary practical skills as bandaging, braiding and clipping. As well you willbe taught such skills as tractor operation, arena maintenance and stable repair.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level, or equivalent or mature student status
- an interest in horses

Interests and Skills

- self discipline and a sense of maturity and responsibility
- ability to work as part of a team or on your own
- a willingness to work hard and take pride in your accomplishments
- communications skills

Job Opportunities

Numerous jobs exist for skilled labour at breeding farms, show stables, racing stables and boarding and training operations. Employment inequine care usually involves a six day work week; the work is physically demanding and a large percentage of the work is done outdoors. Fringe benefits may include: room and/or board, board for a horse, the opportunity for travel and further education. A low salary should be anticipated.

Additional Costs

Personal riding, working and grooming apparel and equipment can total $350.00 or more. Students are also expected to pay for their meals and transportation during Field Placements. On the average, costs should not exceed the day-to-day costs of meals and travel during regular class sessions.

Curriculum

Semester 1		Credits
162-127	Basic Nutrition (Equine)	2
162-131	Driving & Breaking Skills 1	2
162-132	English & Western Riding Skills 1	3
162-133	Horse Industry 1	1
162-134	Practical Horse Care 1	4
162-135	Facility Operations 1	2
266-052	Basic Keyboarding	3
	Communications 1	4
	General Studies	3

Semester 2		Credits
162-226	Horse Industry 2	1
162-227	Thoroughbred Racing Industry*	3
162-228	Practical Horse Care 2	3
162-229	Facility Operations 2	2
162-230	Basic Horse Health	2
162-231	Driving & Breaking Skills 2	1
162-232	English & Western Riding Skills 2 *Pre-Req:* 162-132 English & Western Riding Skills 1	3
759-103	First Aid & Accident Prevention	1
	Communications 2	4
	General Studies	3

***Includes a two-week Field Placement at a Thoroughbred racetrack**

Hotel and Restaurant Management Diploma

North Campus

Four semesters beginning in September and January

The Hotel and Restaurant Management Program trains you in both theoretical and practical aspects of hospitality management, preparing you for professional growth in your chosen career. The program provides you with training in managerial and hospitality business subjects; at the same time, attention is given to communications skills, Hospitality Law, marketing, personnel, supervision of food and beverage operations, financial control and computer operations.

To obtain the necessary culinary skills, you will receive extensive practical training in food preparation. This training embraces a variety of international cuisines.

The Humber Room, a 100-seat restaurant/classroom, provides you with hands-on experience in Dining room service, bar operations, and a Remanco computerized control system.

The aim of the Hotel and

Hotel and Restaurant Management Diploma (cont'd.)

Restaurant Management Program is to prepare you for supervisory positions within the industry, positions from which you can grow, specializing in such areas as hotel, restaurant, motel, club and resort management, catering and related segments of the industry.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 business and consumers mathematics and English, at the general level, are highly recommended and may be taken into account for selection purposes

Interests and Skills

- You must like people, possess determination, willing to work hard, have good health, and have good human relations skills.
- You must be prepared to accept rigid discipline, particularly as it relates to safety, sanitation and personal hygiene.

Job Opportunities

Here, at Humber College, the Career Planning and Placement Department can assist you in obtaining employment. This Department, along with the Hospitality Division, organizes on-campus interviews with representatives of major hotels, restaurants, catering companies, clubs and resorts. In the past years, our students have gained wide recognition from the Canadian Hospitality Industry for their dedication, knowledge and professional attitude. There is always a strong demand for graduates of Humber's Hotel and Restaurant Management Program--and we're proud of that fact!

Upon completion of the first two semesters of study, should you wish to start gaining experience you will find that there are many opportunities for part-time employment through Placement Services at Humber.

NOTE: Canada's immigration laws do not permit international students who enter Canada for study to work in Canada.

Graduation Requirements

Each course of study requires a grade of 60%. There is a rigid dress code when working in The Humber Room and Food Labs. Costs over and above tuition reach $300 per semester including the cost of textbooks, equipment, uniforms, etc.

Curriculum

Semester 1 (24 hours/week)		Credits
155-111	Quantity Food Management - Theory 1	2
155-112	Quantity Food Management - Practical 1	4
155-117	Hospitality First Aid & Sanitation	2
155-120	Front Desk Operations*	2
155-119	Front Office Theory*	4
155-115	Theory of Wines, Spirits & Beer*	2
155-116	Practical Bar Service*	2
155-205	Food & Beverage Service Practical 1*	6
155-209	Food & Beverage Service Theory*	2
	Communications 1	4
	General Studies	3

Semester 2 (24 hours/week)		Credits
155-207	Quantity Food Management - Theory 2 *Pre-Req:* 155-111 Quantity Food Management - Theory 1	2
155-208	Quantity Food Management - Practical 2 *Pre-Req:* 155-112 Quantity Food Management - Practical 1	4
155-206	Basic Finance Operation *Pre-Req:* Hosp. Math Test	4
155-120	Front Desk Operations*	2
155-119	Front Office Theory*	4
155-115	Theory of Wines, Spirits & Beer*	2
155-116	Practical Bar Service*	2
155-205	Food & Beverage Service Practical 1*	6
155-209	Food & Beverage Service Theory*	2
	Communications 2	4
	General Studies	3

Semester 3 (24 hours/week)		Credits
155-302	Hospitality Marketing**	4
155-305	Purchasing for Hospitality Industry**	2
155-304	Management Techniques for Hospitality**	2
155-204	Hospitality Law**	3
155-403	Food, Beverage and Labour Cost Control**	3
155-406	Menu Planning**	2
155-408	Practical Baking**	4
155-307	Hospitality Computer Applications**	3
155-407	Personnel in the Hospitality Industry**	4
155-309	International Gastronomy**	7
155-306	Advanced Finance Operations** *Pre-Req:* 155-206 Basic Finance Operation	4
155-310	Food & Beverage Service Practical 2** *Pre-Req:* 155-205 Food & Beverage Service Practical 1*	3
	General Studies	3

Semester 4 (24 hours/week)		Credits
155-302	Hospitality Marketing**	4
155-305	Purchasing for Hospitality Industry**	2
155-304	Management Techniques for Hospitality**	2
155-204	Hospitality Law**	3
155-403	Food, Beverage and Labour Cost Control**	3
155-406	Menu Planning**	2
155-408	Practical Baking**	4
155-307	Hospitality Computer Applications**	3
155-407	Personnel in the Hospitality Industry**	4
155-309	International Gastronomy**	7

Hotel and Restaurant Management Diploma (cont'd.)

155-306	Advanced Finance Operations** *Pre-Req:* 155-206 Basic Finance Operation	4
155-310	Food & Beverage Service Practical 2** *Pre-Req:* 155-205 Food & Beverage Service Practical 1*	3
	General Studies	3

*Indicates that subject may be taken in either Semester 1 or 2 **Indicates that subject may be taken in either Semester 3 or 4

Jockey Training & Exercise Rider

North Campus

This program is offered next in May, 1988, and lasts 10 weeks

The spectacle of thoroughbred horse racing is thrilling, dynamic and everchanging. To reach this final pinnacle of race riding the aspiring jockey must first spend several years learning about horses, care, basic riding, galloping techniques, working horses, breaking from the gate and apprenticing for a minimum of one year.

Humber College's ten-week Jockey Training & Exercise Rider Program provides young people with the preliminary training required for a successful start in such a career. Also, since the percentage of apprentice jockeys with the necessary talent, strength, size and feel to go on to become journeymen jockeys is relatively small, the program also provides back-up training for exercise riding and grooming.

Admission Requirements

- personal interview
- age 16 to 18 is recommended
- applicants should weigh approximately 100 to 135 pounds
- literate in the English language
- a medical certificate confirming suitability for requirements of a Jockey license
- some experience with horses to verify interest in horses and an understanding of the kinds of jobs available
- Students currently enrolled in Secondary School

Job Opportunities

Graduates of the program will find employment at the various tracks and racing farms throughout Ontario and the western provinces. Starting positions may involve the graduate as a hot walker, groom or exercise rider, depending on the individual's past experience with horses and their degree of expertise.

Additional Costs

Riding boots, whip and helmet (approximately) $175

Curriculum

Semester 1		Credits
168-101	Fundamental Equitation	2
168-102	Basic Exercise Riding	3
168-103	Physical Education and Weight Control	2
168-104	Practical Horse Care	6
168-105	Life Skills	2
168-106	Racing as an Industry and as a Sport	2
168-107	Field Work	1

For further information on this program contact: The Equine Centre, Humber College, 205 Humber College Blvd., Etobicoke, Ontario M9W 5L7 (416) 675-5025

Recreation Leadership

Lakeshore Campus

Four semesters beginning September

This four-semester program is designed to train professional personnel in the areas of leadership, organization, administration, supervision and evaluation of a variety of recreation programs and facilities serving all ages. The curriculum will combine academic and professionally-related courses, skill laboratories, residential seminars, field practice and conference and workshop involvement into a significant learning experience. To satisfy the field practice requirements, direct experience in specific recreation agencies or departments is emphasized in the last three semesters.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 business and consumers mathematics, general level, and grade 12 English, general level, are highly recommended and may be taken into account for selection purposes
- resume

Interests and Skills

- experience in the recreation field in a leadership capacity
- general awareness of the nature and scope of recreation and career expectations consistent with the program content
- understanding of human behaviour and ability to relate effectively with a variety of people
- ability to independently participate in all recreation activities and outdoor education/recreation skills sessions

Job Opportunities

Graduates of this program will find opportunities in a variety of recreational agencies including: the municipal government, therapeutic institutions, conservation authorities and outdoor education centres, volunteer agencies, correctional institutes, private organizations, and commercial establishments.

After a few years, the practitioner will be equipped to function at a management lev-

Recreation Leadership (cont'd.)

el where more administrative tasks are performed. Most positions involve flexible schedules, often requiring some evening and weekend work.

Each semester there are additional travel and residential experiences which are important to the learning process and raise the profile of our students with future employers.

These additional activities are subsidized by the College with a minimal fee of $200 per year to cover travel and living expenses charged to each participating student. Alternative comprehensive projects are assigned to those students who may be unable to attend.

Curriculum

Semester 1 (23 hours/week)		Credits
142-107	Introduction to Recreation and Leisure Services	6
142-109	Leisure Programming 1	4
142-113	First Aid/C.P.R.	3
142-112	Field Practice 1 (Recreation Leadership)	3
142-111	Psychology 1 (Recreation Leadership)	3
	Communications 1	4

Semester 2 (25 hours/week)		Credits
142-103	Leadership and Group Dynamics	2
142-207	Recreation Facilities	4
142-208	Leisure Programming 2	5
142-211	Human Growth and Development	3
142-209	Field Practice 2 (Recreation Leadership)	7
	Communications 2	4

Semester 3 (24 hours/week)		Credits
142-311	Outdoor Education/Recreation	4
142-312	Philosophy of Leisure	3
142-315	Recreation Personnel Management	4
142-317	Recreation Finance	3
142-318	Sociology: Recreation Leadership	3
142-316	Field Practice 3	7

Semester 4 (25 hours/week)		Credits
142-413	Fitness & Lifestyle Skills	3
142-409	Recreation Administration	6
142-411	Recreation for Specific Populations	3
142-412	Field Practice 4	7
	General Studies (2)	6

Ski Resort Operations and Management

North Campus

Students will learn the skills they can use immediately in a range of situations. They will also become familiar with the various international tools needed to get the job done. The combination of business and technical content will prepare the graduate or mature student to operate an alpine or a cross-country ski area. Because the ski industry is still developing, the program content is highly flexible to keep abreast of current developments. This flexibility has the advantage of giving the student a very personalized academic plan.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 business and consumers mathematics, general level and grade 12 English, general level, are highly recommended and may be taken into account for selection purposes

Job Opportunities

For mature students, this program will usually bring them a step higher than the position they held before the course. For those who had no experience, the entry jobs will probably be snowmaker, rental shop attendant, lift operator or ski instructor. Opportunities exists across Canada and relocation may be required.

In time, graduates reach the supervisory level up to middle management positions at larger resorts. In smaller resorts, they become area managers. Other jobs exist in ski shops or schools, in the merchandising of snow-making and grooming machinery, and in the distribution of ski equipment to retailers.

Curriculum

Semester 1 (30 hours/week)		Credits
145-501	Ski Lift Operation & Maintenance 1	3
145-502	Snowmaking & Hillgrooming 1	3
145-602	Rental Shop Operation	2
221-001	Principles of Accounting	2
145-503	Ski Resort Management	3
145-505	Area Layout and Design 1	3
145-508	Ski Area Field Research	4
155-103	Beverage Management	4
241-010	Marketing 1	4
	Communications	4

Semester 2 (4 winter months)		Credits
	Field Work	7

Semester 3 (21 hours/week)		Credits
145-613	Ski Resort Food Management	3

Ski Resort Operations and Management (cont'd.)		
145-611	Ski Patrol & Risk Management	3
145-605	Ski Lift Operation & Maintenance 2 *Pre-Req:* 145-501 Ski Lift Operation & Maintenance 1	3
145-608	Area Layout & Design 2 *Pre-Req:* 145-505 Area Layout and Design 1	3
145-601	Ski School Management	2
145-615	Ski Resort Personnel Administration	3
145-614	Marketing Communications	2
145-616	Ski Area Admin. & Finance	3

A major educational field trip is included to give a realistic view of the industry and its personnel. A $200.00 fee will cover travel and living expenses. Alternative comprehensive projects are assigned to students unable to go on the field trip. Field placement positions range from rental shop, snowmaking, ski instructing to ski patrol. You are encouraged to find your own job anywhere in Canada, but you will be assisted by a college supervisor if necessary.

Travel and Tourism

North and Lakeshore Campuses

Four semesters beginning September and January

You will learn to work effectively in positions that require very good communication skills, sales techniques, organization and experience in office procedures and business practices. You will become thoroughly familiar with many manuals used in the travel industry, ticketing, travel destinations and a wide range of current travel products. Accuracy and attention to details will constantly be stressed. This program is not intended to qualify our graduates for careers as flight attendants.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 business and consumers mathematics, general level and grade 12 English, general level are highly recommended and may be taken into account for selection purposes

Job Opportunities

The program qualifies graduates for careers as travel agents, tour operators, reservation agents and sales representatives. Many graduates now hold responsible management position within the travel industry. The current graduate placement in travel related employment is over 90%.

Expected workload and expenses

Some courses require considerable self-directed learning. During the second year, students are assigned to appropriate working locations for field practice. You shoud plan for some travel expenses. Depending on the availability of accommodations, students may wish to take the opportunity to go on an orientation trip to a major tourist destination.

Curriculum

Semester 1 (26 hours/week)		Credits
143-111	Tourism 1	2
143-109	Destinations Travel Geog.	3
143-103	Introduction to Airline Documentation	3
143-118	Travel Techniques A 1	3
143-119	Travel Techniques A 2	3
	Communications 1	4
	General Studies (2)	6
266-052	Basic Keyboarding	3

Semester 2 (23 hours/week)		Credits
143-217	Tourism (The Pacific) IATA Area 3 *Pre-Req:* 143-116	4
143-218	Tariff & Ticketing North America *Pre-Req:* 143-103 Introduction to Airline Documentation	4
143-214	Office Procedures	3
143-219	Computer Applications	2
	Communications 2	4
	General Studies (2)	6

Semester 3 (23 hours/week)		Credits
143-319	Tourism (Europe, Africa) IATA Area 2 *Pre-Req:* 143-109 Destinations Travel Geog.	4
143-313	Tariff & Ticketing International *Pre-Req:* 143-218 Tariff & Ticketing North America	4
143-318	Field Practice 1 *Pre-Req:* All 1st and 2nd semester classes	3
143-315	Product Update 1	2
143-316	Travel Techniques B 1	3
143-317	Travel Techniques B 2	3
143-320	Salesmanship	4

Semester 4 (20 hours/week)		Credits
143-421	Tourism (The Americas & Caribbean) IATA Area 1	3
143-418	Tariff & Ticketing International Advanced *Pre-Req:* 143-313 Tariff & Ticketing International	4
143-414	Travel Techniques "C"	3
143-406	Product Update 2	2
143-416	Field Practice 2 *Pre-Req:* 143-318 Field Practice 1	3
251-009	Canadian Business Methods	3
143-419	Computer Applications Advanced *Pre-Req:* 143-219 Computer Applications	2

Course Descriptions

À la Carte Cuisine 1 001-007
This simulated commercial Restaurant situation should prepare the student for the workforce with actual production pressures and life situations, giving the student the experience of having worked in a diningroom kitchen.

À la Carte Cuisine 2 156-320
Using the Humber Room as an outlet, students are trained in the a'la carte preparation of moderately difficult French and international dishes. Emphasis is on preparation and presentation.

À la Carte Short Order 156-120
This course provides a basic study of cooks training in quality food production. Students will learn: principles of food production, culinary terminology, safe and correct use of kitchen equipment and professional tools.

Emphasis is on correct and safe handling of raw and prepared foodstuffs.

All standards for safety, food and personal hygiene will be observed.

Advanced À la Carte Cuisine 156-420
In this final semester course, students are thoroughly trained and familiarized with the finer aspects of French and international cookery. Emphasis is on organization, time management, preparation and presentation of menu items.

Advanced Finance Operations 155-306**
This course shows how sound financial management can be applied to business planning, decisionmaking and also lead to increased profitability.

Advanced Gardemanger 156-419
This course provides the student an opportunity to advance in buffet preparation, to refine the skills learned in Food Prep. Buffet 1 and apply them to the production of centrepieces, platter designs, terrines and pates.

Anatomy & Physiology 1 162-314
This course involves the study of both the musculo-skeletal and reproductive systems of the horse.A study of common unsoundnesses and lameness analysis will cover the locating of the lame limb, the site of the lameness, signs, causes and treatments. Also covered will be the reproductive anatomy of the horse, various reproductive diseases and causes of reproductive failure, and common breeding practices.

Anatomy & Physiology 2 162-415
This course involves the study of the structures and functions of the respiratory, cardiovascular and gastrointestinal systems. The various states of these systems will be examined with emphasis on an understanding of the pathology involved and its treatment.

Area Layout & Design 2 145-608
This course is intended to further develop the basic design principles and planning factors related to ski resort development. Downhill trail and slope design, construction and maintenance will be discussed as well as cross-country trail development. Variety of facility combinations relevant to winter and summer operations will be studied.

Area Layout and Design 1 145-505
Topics discussed in this course will provide the student with the basic design principles and planning factors as they relate to a development of major year-round facilities shown to expansion of slope or support facilities at smaller ski areas.

Arena Construction, Design and Maintenance 144-512
Students learn the architectural designs and construction of arenas including technical set-ups and how the maintenance should be carried out in an arena with regard to mechanical equipment, building and structural maintenance.

Basic Finance Operation 155-206
This course explains the importance of sound financial management, giving the student a knowledge of the general principles and specific techniques that are involved such as bookkeeping, accounting and analysis.

A prerequisite to this course is a Math Pretest.

Basic Horse Health 162-230
This course will deal with various common health problems of the horse. Based upon initial discussion of the healthy horse, students will then cover common injuries and their treatment by practical first-aid. Other major areas of emphasis will be common diseases, their symptoms and treatments; identification and location of lamenesses; and lameness care and therapy.

Basic Keyboarding 266-052
The student will receive instruction in basic alpha-numeric keyboarding techniques and the preparation of typewritten communications associated with the specific program of study. Some topics may include microcomputer applications where facilities are available.

Basic Nutrition (Equine) 162-127
Basic Equine Nutrition will cover the fundamentals of equine nutrition so that thestudent can gain a thorough understanding of the horse's digestive system, basic nutrition and why the horse needs them, grain and hay identification, balancing the equine diet, the value of commercial feeds, and the feeding of special types of horses.

Beverage Management 155-103
This course provides a study and complete design of food and beverage service in a ski resort base lodge. Principles of food service design and layout, kitchen equipment layout, menu planning, food and labour cost control and food purchasing are discussed and used in the students base lodge thesis.

Canadian Business Methods 251-009
Designed to familiarize students with the various forces that affect and govern the conducting of business in Canada.

Coaching Awareness Theory 162-429
This course is comprised of weekly three hour discussion sessions covering such topics as rider turnout for the exam, preparation for the oral segment of the examination, practical skills, current equine publications, familiarization with the rulebook, longeing and long-lining techniques as well as application, usage and fitting of specialized equipment.

Computer Applications 143-219
Provides the required skills and techniques in the use of airline automated systems. Students will be trained to use the airline systems as a sales tool for instant and updated travel counselling. Currently, training is performed on the Air Canada Reservec system.

Computer Applications Advanced 143-419
See course description for Computer Concepts (143-215).

Concessions 1 144-508
An examination of the procedures involved in ordering, serving and controlling the various concession items in an arena operation. Specifics such as types of stock, facility location and methods of dispensing will be studied.

Confectionary 156-418
The student is provided with the knowledge of advanced pastry work in the following areas: assorted plated desserts; petit four glace; a variety of centre pieces in gum paste; sugar and chocolate work. Assembling and decoration of wedding cakes. The emphasis will be on quality, cost control and artistry.

Cuisine Theory 156-223
Cuisine Theory 2 is designed to give the student advanced knowledge in various types of cooking methods, food preparation, menu analysis, fish, and meat dishes.

Destinations Travel Geog. 143-109
Designed to familiarize the student with the location of all notable countries and cities worldwide. This course involves a considerable amount of structured self study.

Driving & Breaking Skills 1 162-131
In these courses students will be taught how to start a green horse to both ride and drive. The driving segment will provide students with instruction in harnessing, hitching

and methods of driving. The breaking segment will cover a range of topics from the halter breaking of the foal to final schooling and will include various training and schooling techniques.

Driving & Breaking Skills 2 162-231

Refer to course description of Driving & Breaking Skills 1 (162-131).

Elements of Accounting 221-010

This course provides an introduction to the subject of accounting. The full accounting cycle is covered from the introduction of data to the accounting cycle through its detailed recording. Practice will be obtained in the preparation of financial statements, maintenance of subsidiary ledgers and payroll records.

The objective of the course is to give an insight into the mechanics of accounting so that the student may have an understanding for reference in business situations or as a foundation on which he may continue in advanced study of the subject of accounting.

English & Western Riding Skills 1 162-132

These courses will provide the student with the necessary, correct basics of English and Western equitation. They will cover such major areas as correct body position, effective use of aids and the psychology of horse control in a sequential manner.

English & Western Riding Skills 2 162-232

Refer to course description of English & Western Riding Skills 1 (162-132).

Equestrian Skills 1 162-328

This intensive riding program, both on the flat and over fences, is designed to prepare both horse and rider to meet the riding requirements of the Levels 1 and 2 Equestrian Coaching Certificate. Correct body positioning, effective use of aids, longitudinal and lateral schooling of the horse, gymnastic jumping, course work, and the psychology of training will be the major areas of concentration. The ultimate objective is the development of stylish, effective riders both on the flat and over fences.

Equestrian Skills 2 162-428

Refer to course description of Equestrian Skills 1 (162-328).

Equine Exercise Physiology 162-436

This course covers the basic function of "how the animal works as a biological machine". It includes studies at the cellular, tissue and body systems levels. Selected aspects of function and performance will be covered as will muscle function and the dependence of muscle on other body systems to maintain function during exercise, which will constitute the main theme of this course. Other topics will include biological adaption, etc.

Equine Nutrition 1 162-325

Students will learn the fundamentals of animal nutrition which will then aid students to understand feed nutrients, why the horse needs them, where and how they are obtained and how they are used. Digestive physiology, lab tests for nutrient adequacy and the identification of common grains and feed supplements will also be covered.

Equine Sports Psychology 162-326

This course will serve as an introduction to the principles and concepts of motor learning and their application to the teaching of equestrian skills. Students will study the distinction between learning and performance, the classification of motor skills, and the learner and the environment. Equestrian skills will be analyzed and the analysis used as a basis for developingteaching techniques. Theory of Coaching, Level 1 will comprise a section of this course.

Facility Operations 1 162-135

In these consecutive courses students will learn and practice the day-to-day skills called for in the horse industry including: general facility maintenance, paddock construction, jump building and repair, tractor maintenance and driving, inventory control, arena maintenance and stall construction and maintenance. Students, as part of this course, will be expected to, on a rotating basis, participate in the feeding of facility horses, mucking out stalls and tack cleaning.

Facility Operations 2 162-229

Refer to course description of Facility Operations 1 (162-135).

Field Orientation 4 (for Recreation Leadership graduates) 144-514

(Rec. Graduates)

A series of field trips and seminars to various arena facilities where the facilities will be examined and analyzed in relation to the overall course content.

Field Practice 1 143-318

Two 3-week hands-on assignments in selected travel offices designed to give students the opportunity to apply learned theories and techniques in an industry environment. This assignment also enhances the employment potential of students.

Field Practice 1 (Food Industry Technician) 115-313

Field Practice 1 is an orientation to the food industry through field trips to food processing plants and guest speakers representing the industry. This familiarization should focus the students' attention on the work setting and underline the relationship of the course to the industry.

Field Practice 1 (Recreation Leadership) 142-112

This course is designed to provide an introduction to a variety of agencies and personnel in the recreation field. This awareness will assist students and prepare them for selection of field practice assignments and possible career placements.

Field Practice 2 143-416

See course description for Field Practice 1 (143-318).

Field Practice 2 (Food Industry Technician) 115-316

Field Practice is practical work experience related to classroom theory. The initial placement will allow the student experience in the work setting. Written and oral reports highlight the variety of placements.

Field Practice 2 (Recreation Leadership) 142-209

This course offers the student an opportunity to acquire first-hand practical experience with the ultimate end result to assist in obtaining full-time employment in the recreation field. Students take full responsibility in designing a proposal, developing a learning agreement, implementing, documenting and evaluating the field work experience in cooperation with agency or resource personnel. All students are assigned a College Advisor who will approve field practice proposals and assist in the evaluation of the student and appropriateness of the recreation agency or department.

Field Practice 3 142-316

Refer to course description of Field Practice 2 (142-209).

Field Practice 3 (Food Industry Technician) 115-422

Field Practice is practical work experience related to classroom theory. A variety of placements will enable students to understand the types of jobs suited to program graduates and help them become a valuable industry employee within a shorter period of time.

Field Practice 4 142-412

Refer to course description of Field Practice 2 (142-209).

First Aid & Accident Prevention 759-103

This course will teach the student practical skills based on first aid principles and standardized procedures related to emergency treatment of persons in accident situations. Consideration will be given to causes and prevention of accidents and accidental injuries. Upon successful completion of the course, the student will be awarded the St. John Ambulance Standard First Aid Certificate.

Fitness & Lifestyle Skills 142-413

This course is designed to create a greater awareness and better understanding of fitness and a healthy lifestyle. Comprised of seminar and laboratory sessions this course will provide an overview of basic fitness components, programming and appraisal methods as well as the major variables involved in a healthy lifestyle including, stress, nutrition, heart disease and exercise.

Food & Beverage Service Practical 1* 155-205

This course will familiarize the student with all aspects of job descriptions and duties of dining room personnel and practical operations of a dining room.

Food & Beverage Service Practical 2 155-310**

Students will be actively involved in the actual operation of the Humber Room Restaurant. They will learn how to coordinate all tasks required for the business operation of the dining room.

Emphasis will be placed on the development of supervisory skills, professional attitudes towards customers and the establishment, practice of French and Russian table service, Gueridon cookery and services, bar merchandising and marketing.

Included in this course are the functional organization, duties and responsibilities of the dining room manager, maitre d'hotel, cashier and bartender.

Students will assist in training the newly enrolled students in the various tasks required in the restaurant operation.

Food & Beverage Service Theory* 155-209

The course provides a detailed study of the role, functions, and duties of a dining room manager, cateringmanager, or a food and beverage manager of the hotel, club, restaurant, or industrial food service enterprises. Emphasis is on theoretical knowledge of food and beverage service, staff supervision, cash control, professional attitude, satisfactory service of the customers, knowledge of menu and the bar list, also management control through the Remanco computer.

Food and Labour Cost Controls 156-422

The professional cook must have a knowledge of accounting methods in order to run a profitable operation. This is even more so in a smaller operation where the chef may also do all of the administrative work.

The course provides an overview of the basic fundamentals of accounting. Included in the course will be bookkeeping, budget and forecasting. Emphasis will be on payroll control procedures, value of inventories and cost of sales.

Food and Labour Costing Concepts 156-222

This course will enable the student to develop menu and labour costings for various types of food service operations; analyse different cost centers within the kitchen; and put together an overall operating budget for a kitchen operation.

Food Chemistry 1 340-139

To continue the development of a basic literacy in language, concepts and procedures of chemistry as they apply to the food industry.

Food Chemistry 2 340-140

This course will introduce the students to chemistry as applied more specifically to the food industry. The main emphasis is on biochemistry both in lecture and laboratory.

Food Marketing 1 115-310

Food Marketing 1 introduces the marketing concept and includes an indepth study of one aspect of the marketing mix--the product and product development in the food industry.

Food Marketing 2 115-413

Food Marketing 2 completes the marketing mix with the study of product distribution, promotion and price. A knowledge of marketing decision making increases the student's potential contribution to the food industry.

Food Packaging 115-425

Food packaging is an important area in the food processing industry. There are constant new developments resulting in improved protection for the packaged food products--increasing the shelf life, enhancing the appeal and decreasing the costs.

Food Processing 115-424

This is an introductory course intended to provide a basic understanding of various food manufacturing practices, utilized in modern food processing industries. Emphasis will be on practical applications, without too many technical details.

Food Production Practical 156-119

In this lab situation, the student will produce food items following a demonstration by the instructor. The student will have the opportunity to apply his acquired knowledge in a practical lab setting, including convenience food items for comparison to freshly made items.

Food Production Theory 156-123

The course provides a detailed study of the basic theory of professional food preparation, as pertaining to the cooking principles.

Students will learn the culinary basics, terminology, technology and develop self-confidence toward food production.

Food, Beverage and Labour Cost Control 155-403**

This course gives the student a working knowledge of the forms and methods needed to control food, beverage and labour in a restaurant setting from menu development to yearly operating statements.

Front Desk Operations* 155-120

This course allows the student to experience the practical application of registration, posting to the guest account and audit of folio's through the use of modern front office equipment.

Front Office Theory* 155-119

This course will give the student a basic knowledge of the front of the house operations in a typical hotel. Specific emphasis is placed on reservations, night audit, and front desk procedures.

Gardemanger - Buffet 156-319

This course provides a detailed study in the production of hot and cold buffets. Throughout the course the student will learn to prepare hot hors d'oeuvre, cold hors d'oeuvre, cold canapes, salads and decorated platter presentations.

Horse Industry 1 162-133

In this course students will be exposed to the history, development and aims of many segments of the horse industry through the use of guest speakers, videos, films and demonstrations. Additional to the exposure to areas of the industry students may be unaware of, students will also be made aware of employment expectations and opportunities. As well, the instructor will use this class to keep students up to date on current affairs in the industry.

Horse Industry 2 162-226

In continuation of Horse Industry 1, this coruse will cover the history, development and aims of the many segments within the multi-faceted horse industry via guest speakers, films, videos and demonstrations. Additionally, students will be provided with information by their instructor to keep them up to date on current events in various areas within the industry. Information concerning graduate employment will also be covered as it relates to each industry segment as it is discussed.

Hospitality Computer Applications 155-307**

This course is designed to introduce the computer technology for the Hospitality Industry, including actual practice on mini-computers and the Remanco System specially designed for the management control of restaurant and bar operations. Emphasis will be on management systems controlling the Hotel front office, food inventories, menu planning, cost control and payroll.

Hospitality First Aid & Sanitation 155-117

This course will teach the practical skills based on first aid principles and standardized procedures. Upon successful completion of the course, the student will be awarded the St. John Ambulance Standard First Aid Certificate.

The student will realize the importance of kitchen and personal sanitation as it relates to the law and the hospitality industry.

Hospitality Law 155-204**

The student will learn the law and legislation pertaining to the Canadian hospitality industry, the insurance, liabilities, right of lieu and Innkeepers Compensations; also how the law protects the customers.

Hospitality Marketing 155-302**

This course includes a study of hotels, motels, and resort marketing; market analysis; marketing plans, package travel; public relations; direct mail advertising; internal promotion; group and convention sales. Also covered is the job of the sales representative, how to make a sales call, and convention service functions.

Hotel Butchery 156-321

This course provides a detailed study of the theoretical techniques, and the methods of hotel style butchery of veal, lamb, beef, pork, poultry, game and fish.

The student will learn boning, portioning, stuffing, larding and barding and preparation of various cuts of meat for cooking.

Emphasis is on practical work with butchery tools, production safety and personal hygiene.

Human Growth and Development 142-211

In this study of human growth and development patterns from conception to old age, social, emotional, intellectual and physical aspects of each development stage will be examined and implications for recreation programs will be considered.

Ingredient Technology 115-318

This course is designed to help the student become familiar with a wide range of commercial food ingredients. To help the student gain a good understanding, each student will use these ingredients for product formulation.

Instructional Theory 162-111

This course will prepare the student for practical involvement when teaching riding. The student

will learn the theory of teaching, the methods of organizing lesson plans, dealing with different personalities and coping with possible problems that might occur during a lesson.

International Gastronomy *
155-309

This course provides practice of International and French cuisine, professional services for dining room, computerized control of the restaurant operations and actual participation in the operation of the licensed restaurant.

The students actually prepare the food for a 100 seat licenced restaurant.

Interpersonal Communications Skills 1

This course provides the student with a communication skill model, that should enable him to obtain and maintain employment. Emphasis is on self-development to a congruent person, and to prepare the student upon industry expectations.

Interpersonal Communications Skills 2

This follow-up course will make the student aware of the basic needs of personnel management. Emphasis is upon the student's understanding and practising motivations, rewarding systems and organization of self and co-workers.

Introduction to Airline Documentation 143-103

Provides the basic, intermediate and advanced skill necessary for the calculation of simple and complex airline fares on domestic and international routes. The complete course also covers Bank Settlement Plan reporting and the issuance of every type of airline ticket.

Introduction to Chemistry of Foods 340-152

The student will be introduced to the fundamentals of general chemistry and to some manipulative skills commonly required in the food industry.

Introduction to Recreation and Leisure Services 142-107

This course will define recreation and trace its historical development with particular emphasis on Ontario. Students will become knowledgeable in various legislative acts affecting recreation in Ontario and study in detail the committee and staff structures governing municipal recreation.

Program activities by season, age group, and sex will be studied through an examination of the activities and staffing, and organizational procedures for a year-round activity program. A detailed survey of the minor sport program organization at the community, provincial and national levels will be conducted through an examination of philosophy and operation.

Kitchen Management - Advanced 609-104

This course of the Cook (Cuisine) Apprentice Program covers areas such as the internal areas involved in effective food cost control, refined menu costing, labour relations and management responsibilities. Other areas covered pertaining to the development of a professional chef are the appreciation of wines and the production of them, and the development of a compatible wine list for a restaurant operation. The values of all of these areas cannot be underestimated--and a successful cuisine administrator must have a comprehensive knowledge of the above areas.

Kitchen Management - Basic 609-004

This course in the Cook (Cuisine) Apprentice Program introduces the student to various concpets in the planning and administration of the kitchen. The chef in the kitchen of today's hospitality industry needs to have a basic knowledge of costing food items. Other important areas covered to develop the cuisinist is effective menu planning for various types of functions/operations. Students will study basic nutritional needs in menu planning, kitchen layouts, and the various types of styles infood service - French, Russian, American and the characteristics of each.

Larder Preparations 156-501

This course provides the student with a detailed study in larder and butchery preparation and an all round understanding of the principals involved in short order larder and butchery. Emphasis is on preparation of cold foods such as sandwiches, canape's, salads, cold platters and pre-preparation of meat for cooking.

Leadership and Group Dynamics 142-103

This study of the principles of leadership and effective working with groups will include current theories and their application. The course also provides an opportunity to practice and develop basic communication skills and experiment with different styles of group leadership. The fundamentals of parliamentary procedure and the preparation of constitutions and by-laws of organizations will be explored through an experiential approach.

Leisure Programming 1 142-109

This course is designed to introduce students to programming through a developmental sequence of topics including: concepts, planning process, classification of activities, structure and formats and evaluating program effectiveness. In addition, principles and practices relative to personal organization and time management will be discussed.

Leisure Programming 2 142-208

This course will examine the basics of marketing as applied to recreation and focus upon the acquisition of winter outdoor skills through a residential seminar. In addition, all students will actively participate in presenting a variety of recreation activities with a particular emphasis on organizational variables.

Management Techniques for Hospitality 155-304**

Students will study the theory of management, planning, organization and the systematic technique ofmanagement. They will become familiar with approaches to control, financial management, the concept of marketing, management of energy, and feasibility studies as they relate to management today.

Management Techniques 1 162-430

These courses will assist the student to develop managerial abilities in the areas of stable construction, organization and landscaping; breeding farm techniques; record keeping, insurance and liability; personnel management techniques; marketing; inventory control; and various office skills. Students will also discuss the ethics of buying and selling horses, commissions, etc. Other topics will include farm equipment and hardware. Students in these courses will participate in two two-week Field Placements, one at a breeding farm and the other at a training centre. Additionally, they will both participate in, as well as supervise, stable duty at the Equine Centre.

Management Techniques 2* 162-431

Refer to course description of Management Techniques 1 (162-430).

Marketing Communications 145-614

This course will examine and allow students to perform various tasks associated with the public relations, advertising, marketing and communication aspects of effective resort and ski area operations. Students will explore both basic principles and creative approaches to market research, market strategy, budgeting and effective advertising.

Marketing 1 241-010

This course is designed to introduce the student to the systems idea of the marketing concept as practiced in business management . It will assist the student in developing a functional judgment of the role each of the controllable variables plays in the marketing mix. This course will also provide a base for future marketing courses such as, marketing 2, marketing research, marketing management, retailing, advertising, salesmanship, sales management, sales promotion, physical distribution etc.

Mathematics for Food Technicians 903-101

Mathematics for Food Technicians is a course designed to provide students who are entering the food industry the basic mathematic skills that will be required to solve problems in industry. This course will review basic mathematics, algebraic and statistical concepts through a problem solving approach.

Menu Planning Concepts 156-322

This course will teach the student how to develop a food, beverage and alcoholic beverage (wine) list from the initial concept stage to the final printed format, with topic areas such as feasibility studies, print selection, and menu planning economics.

Microbiology 340-141

This course will furnish the student with an understanding of basic microbiology and its application in food preservation, preparation and sanitation.

Nutrition 1 115-113

A knowledge of nutrition will form a basis for understanding how nutrition is an important element in food technology, prepar-

ation and use by the ultimate consumer. The areas of study include the principles of good nutrition, the forms and sources of the major nutrients and their function in the body.

Nutrition 2 115-213

The course continues the nutrient study with emphasis on contemporary issues and the application of nutritional knowledge in understanding these issues in relation to the food industry.

Nutrition 2 162-435

Using the theoretical knowledge of nutrients and nutrient requirements discussed in Equine Nutrition 1, students will apply themselves in ration formulation. As well, identification of common hays and pasture management will be covered. Other topics will include investigations of various commercial horse feed products and the feeding requirements of the foal, the broodmare, the fat horse and other special cases in equine nutrition.

Office Procedures 143-214

Practical coverage of specific procedures and practices realtive to wholesale and retail travel offices.

Outdoor Education/Recreation 142-311

This course will provide an awareness of the outdoor education/recreation field through classroom involvement and participation in a residential outdoor skills seminar. Topics include: outdoor leadership principles, Conservation Authorities, Provincial Park Systems, Environment Canada Parks and the National Parks System, Organized Camping and Professional Associations and Organizations of particular interest to outdoor recreationists.

Pastry 1 156-218

This course develops the students' experiences into producing more advanced products such as japonaize, brandy snaps, danish pastries, black forest torte, special occasion gateau, wine jellies, souffles and bavarois.

Pastry 2 156-318

The student is provided with the knowledge of advanced pastry work in the following areas: petit four sec, assorted desserts, ice cream and sherbets, hors d'oeuvre, international tortes and gateauxs, croissants and cheese cakes. The emphasis will be on quality and artistry.

Personnel in the Hospitality Industry 155-407**

The student will learn the basic knowledge, to write job descriptions, recruit, interview, select, hire, write training programs, implement and evaluate results. The student will become familiar with management labour relations and collective agreements.

Personnel Administration - Arena Mgmt. 144-509

A study of the techniques of hiring, supervising, and evaluating staff; the keeping of necessary records and other related topics.

Philosophy of Leisure 142-312

Students develop their own "philosophy of leisure" through an introduction of concepts of leisure and recreation, their effect on the delivery of leisure services today and in the future. The major factors affecting leisure patterns and the theories of contemporary authorities relative to current and future social, economic and other conditions are examined.

Practical Baking 156-118

This course teaches the student the fundamentals of bakery ingredients and technology of bakery products. The preparation of bread and rolls, sponge and fruit cakes, pie crusts, choux paste, puff pastry, tea biscuits and muffins will be covered.

Practical Bar Service* 155-116

The student will be able to mix the top 30 cocktails with an understanding of the layout, mixing methods and control of a bar.

Practical Cuisine 156-220

This course provides a study in advanced professional cookery. Emphasis is on food production under industry conditions in the Humber Room kitchens.

Students will operate 'Partie' system covering preparation of: appetizers, forcemeats for fish, meat dishes, shellfish cookery, hot and cold entrees.

All standards for safety, food and personal hygiene will be observed.

Practical Cuisine 156-219

Using Small Quantity Food 1 as a stepping stone, students will become more adept in the preparation of soups, sauces, and methods of cooking, under supervision in a lab.

Practical Food Preparation - Advanced 609-102

This course of the Cook (Cuisine) Apprentice program introduces students to advanced culinary techniques and preparations. Students will practice: advanced soups, sauces, hors-d'oeuvre, fish, seafood, meat, game and poultry dishes. The student also practices basic and advanced garde mange techniques and applications. The patisserie topics include the preparation of puff pastry products, French pastries, tortes, meringues, mousses, bavarois, petits fours, ices, sorbets, bombes, and dessert table-centre pieces.

Students will be enlightened on the importance of food styling and presentation in all food preparations being cooked and presented, with emphasis on quality cuisine and artistry.

Practical Food Preparation - Basic 609-002

This course provides basic practice in professional food preparation. The student will practise: culinary basics, short-order cooking, the preparation of non-alcoholic beverages, pasta, cereals and rice. The student will also prepare meats, seafood, poultry, sandwiches, and the pre-cooking of foods for service. Vegetable cookery and the methods of cooking seafood, fish, poultry, offal and meat.

Also included will be elementary baking and patiserrie methods, how to make pies, tarts, rolls, cakes and desserts, the practical use of weights and liquid measurements and correct mixing methods when baking will also be covered.

Practical Horse Care 1 162-134

Practical Horse Care 1 will introduce students to various aspects of horse care and handling, including: mucking out, clipping, trimming, horse cothing, methods of restraint, bedding materials, stable vices, and preparation for travel and loading. Students will also be instructed in the selection, care, repair and fitting of English and Western tack. Another segment of this course will see the student assigned the responsibility for the care of one of the school horses. The student will then be responsible for the care of this horse including trimming, grooming and any health treatment.

Practical Horse Care 2 162-228

Practical Horse Care 2 will deal with additional instruction and practice aimed at perfecting some of the skills acquired in Practical Horse Care 1 as well as introducing several new aspects of horse care such as trimming and shoeing procedures, preparing the horse for the show riding and bandaging. Students will also continue with the care of a project horse as outlined in the earlier course.

Principles of Accounting 221-001

This course provides an introduction to the basics of accounting. The accounting cycle is covered in brief outline from the introduction of data to the preparation of financial statements. The use of special journals and the general ledger is explained, along with the maintenance of subsidiary ledgers and payroll records.

Product Development 115-423

This course is designed to introduce the student to the basics of "New Product Development", as applicable to the food industry. Emphasis will be on the practical aspects of developing new products and improving existing products by using various commercial food ingredients in product formulations or by changes in processing methodology.

The final experience will be the development and presentation of one new food product.

Product Update 1 143-315

Weekly presentations by selected travel industry professionals designed to provide students with current information on travel programs, services, packages and destinations.

Product Update 2 143-406

See course description for Product Update 1 (143-315).

Program Scheduling 1 - Arena Mgmt. 144-503

The principles and techniques of scheduling, booking and arranging for the efficient use of the facilities involved in an arena operation will be examined. In addition, the fundamentals of publicity for arena attractions will be introduced.

It will also examine the aspects of the preparation and application of publicity material, the skills of promotion of special events, and the fundamentals of effective relationships with the various publics.

Psychology 1 (Recreation Leadership) 142-111

The purpose of this course is to introduce the student to some basic principles of human behaviour

and through discussion, to relate these principles to one's own experience, thereby gaining a better understanding of oneself and others.

Purchasing for Hospitality Industry 155-305**

The aim of this course is to help the students understand the purchasing function; learn various purchasing systems; and understand the laws, contracts, and warranties related to purchasing.

Quality Control 115-317

This Quality course will outline the responsibilities of a quality control department in a food company. Through classroom instruction and laboratory practice, the student will learn how to measure and evaluate the quality of food products.

Quantity Food Management - Practical 1 155-112

The student will be made aware of basic nutrition, food flavours, palatability of foods, metric system in food operations. He will develop culinary skills and learn basic cooking of stocks, soups and sauces, rice and pasta as well as the preparation of gelatine dishes.

Quantity Food Management - Theory 1 155-111

The student will learn how to plan food service production menu planning, production efficiency, work assigning, recipe analysis, production and sales records. Study will include sanitation and microbiological control.

Quantity Food Management - Theory 2 155-207

Students will learn to identify meats; standards and quality of the prime cuts; aging and storage of meats, poultry and fish. Also included in this course are advanced methods of cooking meats; pantry production; breakfast cookery; quality vegetable preparation and convenience foods.

Recreation for Specific Populations 142-411

This course will emphasize the role of the Recreationist in working with groups and individuals who have special needs. A wide variety of special groups will be explored to obtain a better understanding of recreational requirements of different user groups. Classroom activities will focus on special guest speakers, group presentations, in-class discussions and workshops.

Recreation Administration 142-409

This is a basic introduction to organizational and administrative processes and techniques involved in recreation. The course will focus on administrative structure and organizational considerations; policy development; legal aspects and liability; contracts and insurance; the role of computers; and research.

Recreation Facilities 142-207

This course will introduce the student to the major recreation facility components found in a community. The process of planning, designing, constructing and operating outdoor/indoor facilities will be covered.

Recreation Finance 142-317

This course is designed to provide a basic introduction to the area of recreation finance. The techniques and processes involved in budgeting, accounting, purchasing, grantsmanship, and fund raising will be examined.

Recreation Personnel Management 142-315

An introduction to the leadership requirements of the recreation profession with special emphasis on personnel management. Current theory related to personnel management will be examined and leadership skills will be developed through experiential learning situations.

Refrigeration and Ice Making - Arena Mgmt. 144-506

The theory of refrigeration including an examination of the various systems in current use and of the various problems in current use and of the various problems and techniques involved in the operation and maintenance of ice making equipment. The student will receive the theoretical and practical grounding required to be examined for Ontario Department of Labour Certification. The techniques of ice making for various specific needs will also be studied.

Rental Shop Operation 145-602

This course is designed to prepare students for an operation of a rental shop with focus on management of staff and physical resources. Students will study various shop floor designs, purchasing of equipment as well as basic principles of efficiency improvements. Salamon and Norvinca representatives will be lecturing on equipment design and purchasing as well as discussing proven marketing methods as they apply to rental shops located at ski areas.

Research Techniques 115-215

Research Techniques is a continuation of Sensory Evaluation. Other forms of research which are effective in a profitable marketing program are studied: surveys, interviews, and questionnaires. The development of problem solving and report writing skills make this course very applicable to the needs of industry.

Riding & Driving Skills 2 162-223

See course description for Riding & Driving Skills 1 (162-129).

Riding Skills 1 162-319

Building on the skills acquired in English & Western Riding Skills 1 and 2, these courses will offer the opportunity to advance in the areas Western and/or English Riding and/or Racetrack Exercise Riding. Students will develop their riding skills in order to be a more effective stable manager.

Riding Skills 2 162-419

Refer to course description of Riding Skills 1 (162-319).

Salesmanship 143-320

Designed to provide practical application of professional sales techniques to various aspects of the travel industry.

Sanitation Safety and Equipment - Advanced 609-101

Refer to course description of Safety and Equipment - Basic (609-001).

Sanitation Safety and Equipment - Basic 609-001

This course in the Cook (Cuisine) Apprentice Program is the study of harmful bacterial development within the food service kitchen due to poor hygienic practices - learning basic knowledge on effective sanitation practices for the food serviceindustry in line with the Canadian Sanitation code. Another area covered is that of equipment knowledge, safety systems - including fire and fire safety - and basic first aid. The above areas are important since the food service operator should strive for an "injury free" workplace.

Science of Food 1 115-115

Food is a basic commodity in the home and in the food industry. Understanding of individual foods, their composition and quality can lead to more effective use and cost control in both places. Experimental practice and theory of foods in this course are combined with an introduction to the basics of written reports.

Science of Food 2 115-214

Food components and ingredients will be studied and combined using food industry models to increase the students' understanding of current processing methods.

Sensory Evaluation 115-114

Sensory Evaluation is an introduction to the techniques used to determine the acceptability of food products in the market place. The main areas of study are sensory evaluation techniques and development of the student's sensory skills.

Showing & Judging 1* 162-324

This course will teach the student the principles of conformation assessment as they relate to different breeds of horses, the rules and regulations of judging hunters, jumpers, equitation, dressage and 3-day eventing, and the preparation of horses for shows and sales. The student will also learn to run a horse show, design and construct courses, and will gain experience working as a major horse show (The Royal Agricultural Winter Fair) in administration, sales, or an equine related field in their area of interest.

Showing & Judging 2 162-434

This course will continue with specific breed type conformation and the rules relating to their judging. Students will also discuss the preparation of horses and riders for shows, purchasing and selling horses, and the "how to's" of judging.

Ski Area Admin. & Finance 145-616

Sound planning and business administration practices are essential for a successful operation of a ski area. Material in this course will introduce students to various methods of planning a day-to-day operation including break-even analysis, scheduling of projects, budgeting and financial controls.

Ski Area Field Research 145-508

Students will visit several ski areas and resorts in Southern Ontario. These visits will provide an opportunity to examine all three types of ski centres and their facilities. Students can discuss inside and outside departments with

their managers. Lift and snowmaking equipment will be looked at, at this time to enhance students theoretical knowledge.

Ski Lift Operation & Maintenance 1 145-501

In this course, the student will develop kowledge of the design and terminology of various types of ski lifts. In the first part of the course students will learn how to balance uphill capacity to downhill VTFH demand, how to select a lift to complement a level of skier ability and trail and slope network. The second part will focus on wire ropes, their construction and uses. The balance of the time will be spent on operation of lifts and legislation pertaining to lift operation.

Ski Lift Operation & Maintenance 2 145-605

To provide the students with an understanding of ski lift design, construction and maintenance. Chairlifts and T-bars will be discussed in detail including various mechanical and electrical components. To compliment the technical part of this course the students will be exposed to light ticketing methods, lift revenue forecasting and budgeting.

Ski Patrol & Risk Management 145-611

In recent years many ski areas have found themselves in an unenviable situation having to defend themselves against litigations arising from liability cases. This course is designed to create an awareness of the means future managers have at their disposal to decrease lability risk situations. The material will give the student a broad overview of risk management practices including list of services offered by the Canadian Ski Patrol System.

Ski Resort Food Management 145-613

This course provides a study and complete design of food and beverage service in a ski resort base lodge. Principles of food service design and layout, kitchen equipment layout, menu planning, food and labour cost control and food purchasing are discussed and used in the student's base lodge thesis.

Ski Resort Management 145-503

An operations management level course, comprising 3 short certificate courses: 1) Cafeteria Layout, Costing and Merchandising; 2) Developing Managing Skills; and 3) How to Develop a Base Lodge Prospectus.

Ski Resort Personnel Administration 145-615

This course will examine the components of the management process, as they affect arenas. It will also analyze the various stages of employee relationships with emphasis on human relations and effective supervision. Case studies and other resources will be used to facilitate the application of various theories to the practical aspects of Arena Management.

Ski School Management 145-601

The content of this course is designed to provide students with fundamentals on Ski School Operations. Various types of ski schools are discussed with focus on administration, programs and public relations. Guest speakers from major breweries will introduce students to a number of promotional programs that take place across Canada and how these can be used to promote skiing at individual areas. Participants will also examine the structure and role of Canadian Ski Instructors Alliance and their role in training ski school personnel.

Snowmaking & Hillgrooming 1 145-502

The student will be exposed to principles of snowmaking equipment used in thesnowmaking and hillgrooming as well as their uses. The monitoring of equipment and its application as it relates to an efficient operation will be discussed in detail. Students will also learn about snow preparation, control and retention.

Sociology: Recreation Leadership 142-318

This course examines sport from a sociological perspective. It analyzes human behaviour within the context of the institutions of sport and cultural activities. The myths around sport are examined in the areas of business, politics, coaching, cheating, drugs and gambling. These concepts are evaluated for all members of society: children, women, men and minorities.

Structure and Finance - Arena Mgmt. 144-515

An examination of legislation affecting the construction and operation of arenas. The organization and function of Boards and Committees and the responsibilities of staff in the various structures.

A study of procedures and practices involved in the organization and operation for business office with emphasis on budget, budget control, financial statements, costing, purchasing, etc.

The techniques involved in ticket sales, promotions, season tickets, etc. The various types of legal contracts involved in the operation of arenas will also be studied.

An analysis of the problems involved in dealing with large crowds--parking, fire-regulations, emergency procedures, crowd movement, etc.

An in-depth study of the various types of insurance necessary in the oper ation of an arena, the implications of public liability and other legal concerns in the arena industry.

Supervisory Techniques 115-421

Graduates of the Food Technician Program can reasonably expect to be offered supervisory positions during their careers. This course examines the theory and practice of effective supervision. The human relations skills necessary for supervisors, the nature of organizations, and the technical aspects of supervision are central to the course. Labour and human rights legislation affecting the workplace in Ontario are also studied. To the extent possible--through case histories, role playing, etc.--this is a practice-oriented course.

Tariff & Ticketing International 143-313

See course description for Tariff & Ticketing 1 (143-206).

Tariff & Ticketing International Advanced 143-418

See course description for Tariff & Ticketing 1 (143-206).

Tariff & Ticketing North America 143-218

Provides the basic, intermediate and advanced skill necessary for the calculation of simple and complex airline fares on domestic and international routes. The complete course also covers Bank Settlement Plan reporting and the issuance of every type of airline ticket.

Teaching Skills* 162-437

Students will gain teaching experience by actively observing Teaching Masters in both arena and stable situations. Additionally, they will act as assistant instructors for a ten week evening course. Students will also have an intensive two-week in-house Field Placement in which they will teach both one another and other students.

Theory & Demo Food Preparation - Advanced 609-103

This course is an ongoing theory, demonstration and development program totally in line with the topics within the "Food Preparation Practical Classes". Students will learn the theory background for advanced culinary preparations of soups, sauces, hors-d'oeuvre, fish, seafood, meat, game, garde mange, and patisserie work.

Emphasis will be put on cost control, quality and standards of food. Traditional and contemporary food styling aspects will be an important unit of food demonstrations development.

Theory & Demo Food Preparation - Basic 609-003

The course provides a detailed study of basic theory of food preparations which is based on the art of French Cuisine. Students will learn applications of the basic theory of cooking for menu planning, organizing of mis en place, production techniques, garnishing methods when serving food. Areas to be covered include: culinary basics, short-order items, non-alcoholic, farinaceous products, soups and sauces, larder, vegetables and potatoes, seafood and fish, poultry, meat and offal, elementary baking.

The emphasis is upon cost control, quality and standards of prepared foods, also upon group work, methods, production, discipline, safety, food sanitation, personal hygiene and culinary perfections.

Theory of Coaching, Level 2 162-220

The Ontario Coaching Development Program provides coaches with formal training in the science andart of coaching to improve leadership skills and upgrade coaching knowledge. This program awards accredited certification to successful participants. Topics include the role of the coach, leadership and communication, sport psychology, motor learning and motivation, growth and development, biomechanics, exercise physiology, sports medicine and principles of athletic conditioning.

Theory of Wines, Spirits & Beer **155-115**

A study of wines, spirits and beers of the world, the history of manufacturing, marketing and their application to various foods of the world, the ordering, storage and methods of marketing and sales.

Thoroughbred Racing Industry* **162-227**

Thoroughbred Racing Industry involves a study of the many administrative and technical aspects of Thoroughbred racing. Students will gain a comprehensive picture of backstretch activities, conditioning methods, the administration and control of racing, government involvement in the industry, Thoroughbred history and horse selection principles. As a part of this course students will be involved in a two-week Field Placement at a Thoroughbred racetrack.

Tourism (Europe, Africa) IATA Area 2 **143-319**

See course description for Tourism 1 (143-111).

Tourism (The Americas & Caribbean) IATA Area 1 **143-421**

See course description for Tourism 1 (143-111).

Tourism (The Pacific) IATA Area 3 **143-217**

See course description for Tourism 1 (143-111).

Tourism 1 **143-111**

Designed to show the wide scope of the travel and tourism industry and to provide an in-depth study of tourism in specific areas of the world.

Travel Techniques "C" **143-414**

See course description for Travel Techniques A 1 (143-118).

Travel Techniques A 1 **143-118**

Designed to provide an indepth study of various skills and techniques essential to the travel industry, from the basic interpretation of reference manuals and guides, through the designing and costing of complex tour itineraries, to the comprehension of the legal aspects of travel counselling.

Travel Techniques A 2 **143-119**

See course description for Travel Techniques A 1 (143-118).

Travel Techniques B 1 **143-316**

See course description for Travel Techniques A 1 (143-118).

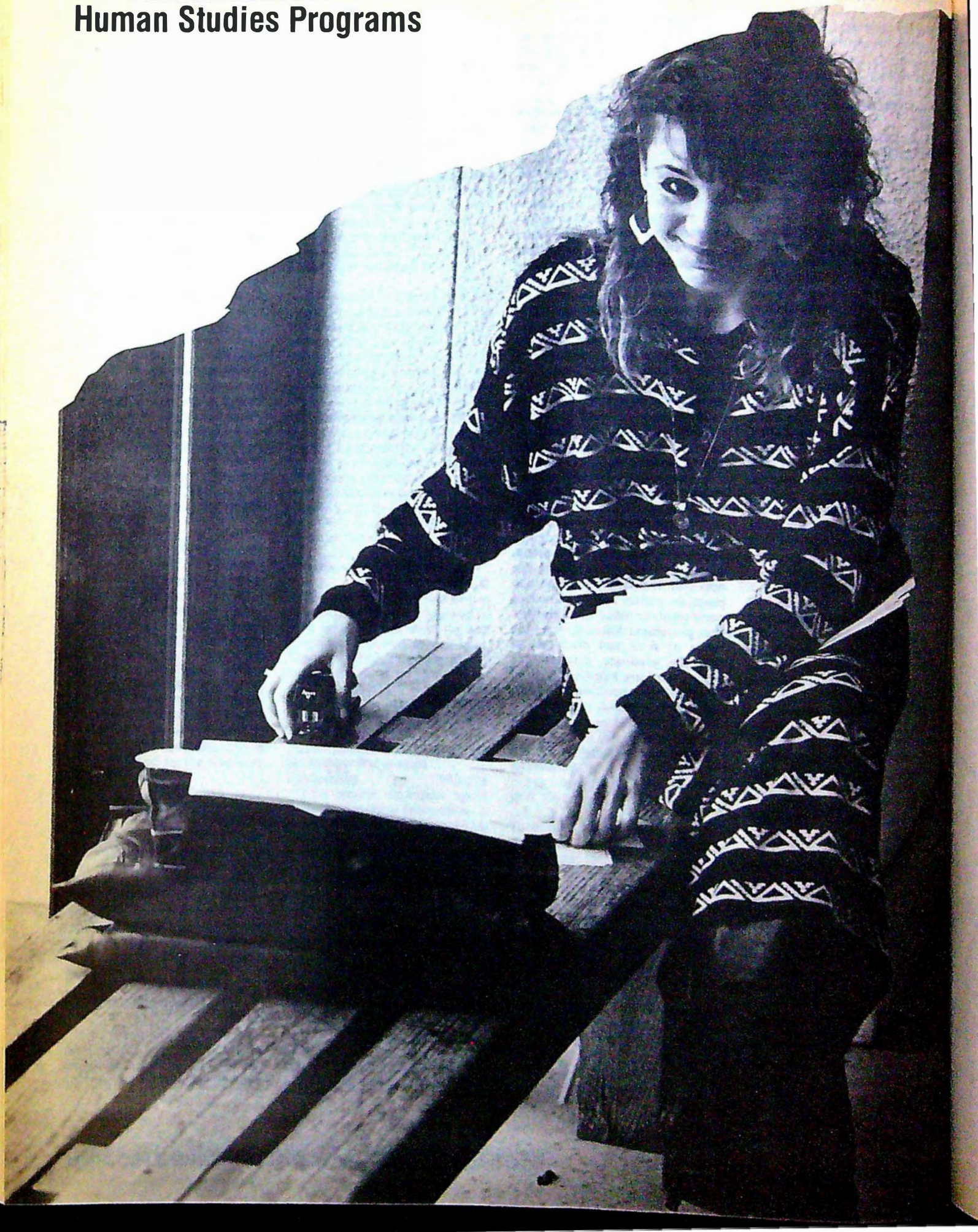
Travel Techniques B 2 **143-317**

See course description for Travel Techniques A 1 (143-118).

Work Experience **144-603**

A course involving regular placement in an approved arena, where the student will have the opportunity to apply the theory to practice under the guidance of competent, certified practitioners. This placement will involve a wide range of skills and practices, so that the graduate may emerge with a working knowledge of all phases of the operation of an arena.

Human Studies Programs



Academic Preparation

Lakeshore and/or Keelesdale Campus

Start dates: Day and evening classes begin every Monday.

Evening classes begin every semester (York Eglinton Campus)

If you have not completed high school, and are 19 years of age or over, it may be appropriate for you to begin your college education in our Academic Preparation Program. To start the program you should have an interview with an admissions officer to help determine a career path appropriate for you. We can help you work toward a certificate or toward admission into any program outlined in this calendar.

For every program, we have determined the specific academic tasks that you should be able to do by the time you are admitted. This allows us to build an individual study plan for you that may include English, Mathematics, Physics, Chemistry, Typing, Drafting and Life Skills. To ensure proper placement, the first days of the program are devoted to orientation and evaluation. You may be eligible for assistance through your local Canada Employment Centre (Manpower) or through one of the financial assistance programs sponsored by the Province of Ontario.

START DATES:

Lakeshore and/or Keelesdale Campus

- day classes begin every Monday

York-Eglinton Campus

- evening classes begin every semester

Further details on assistance programs are available from the Registrar's Office.

Career Centre

The Centre offers a variety of programs assisting women and men to:

- make career choices and changes
- develop personal communication and life management skills
- assess and upgrade academic qualifications
- acquire or update job search techniques

Some of the Programs Available Include:

Full-time day programs:

Career Choices and Changes: 4 weeks

Job Readiness Training: 12 weeks

*Career Planning for Women: 8 weeks

Path to new technology programs: 16 weeks

Discovering Your Options: up to 52 weeks

Training the Handicapped Adult in Transition: 40 weeks

Job Club: 3 weeks

Part-time evening programs:

Career Planning for Women

Career Planning for Immigrant Women

Success Skills for Men

Many programs run all-year round. Call for the next start date!

Students may be eligible to attend these programs on a tuition-assisted basis. For further information call 252-9441, extension 356.

*This program is also available in French.

Planification de Carrière à l'Intention des Femmes

Il nous fait plaisir de présenter un programme conçu pour les femmes qui veulent rèorienter leur carrière ou rèintegrer le monde du travail.

C'est un programme de 8 semaines offert à quelques reprises au courant de l'annee scolaire.

Le but du programme est d'établir un plan réaliste de carrière basé sur les intérêts, aptitudes et compétences de l'individu ainsi que sur les besoins, conditions et possibilités d'emploi d'une région.

Communications Courses

Business, industry and the professions require people who can communicate effectively. To graduate from most two or three year post-secondary programs, you must obtain credits in the following three courses: Language Skills, Communications 1 and Communications 2. Students in shorter programs will have their Communications requirements designated on a divisional basis.

The Language Skills course is a special service provided free of charge to full-time students who have basic writing difficulties. Classes are small and teachers have specialized skills in the area of developmental writing.

The Communications 1 course is designed to make you aware of the importance of effective expression in life and the workplace. You will develop basic research and writing techniques and be required to write clear, simple, expository prose. You will move towards the goal of achieving a concise, concrete and logical style. You will learn to use the library efficiently. Working from a detailed outline, you will be required to set up a documented essay with footnotes and a bibliography. Many of the writing assignments will be on vocationally relevant topics.

The Communications 2 course builds on and reinforces language skills developed in Communications 1 and concentrates on formal writing patterns and critical discussion. Analysis, interpretation, and criticism are the central types of writing in the course. These forms will be practiced in a variety of writing assignments of both a general and a vocational nature. The course will emphasize the integration of reading, writing, speaking, and listening skills.

Humber has two facilities to help students who are weak in the basic skills of English and Math. One, the Language Development Centre, provides assistance to students needing extra help in English. They may drop in anytime for specific help on a problem, or they may come on a regular basis to work on a program we will design to meet their individual needs. In the other, the Math Development Centre, Basic Math courses are offered for students whose pretests have shown their skills to be weak. Some individualized help is also offered on a drop in basis.

The Math Development

Communications Courses (cont'd.)

Centre is in E345, and the Language Development Centre, in E344. We're open from 9 - 4:15 Monday - Thursday and from 9 - 3:20 on Friday.

General Education Courses

Like most post-secondary students you will be required to complete General Education courses before graduating. General Education courses are not program related. In most cases, you will be enrolled in General Education classes composed of students from a variety of different programs. These courses are designed to broaden your understanding of your social, cultural, political and economic environments.

General Education courses are drawn largely from the areas of Social Sciences, Humanities and Literature. Examples of courses include Psychology, Philosophy, Sociology, Canadian Literature, Film Study, and Politics. Between eight and ten courses are generally offered in each timetable module. You will need to obtain your timetable or contact your Program Coordinator to determine which specific courses are available in your timetable module. Course descriptions of all the General Education offerings are available at the end of the Human Studies section in this calendar.

English As A Second Language

Basic E.S.L.

This is a 24-week beginners course which emphasizes the oral skills needed for employment and further education in Canada. Classes start at intervals throughout the year and are held at various campuses in York and Etobicoke. Students may be eligible for assistance through their local Canada Employment Centre.

Advanced E.S.L.

A 12-week program designed for students who have completed a Basic E.S.L. course or equivalent in which improvement in reading, writing and listening skills are emphasized as preparation for the job or for future training courses. Admission is by interview and a placement test (by appointment only). Classes are held at Keelesdale Campus, September - June, 4 hours daily or evenings.

NOTE:

For information, please call 763-5141, extension 55.

General Arts and Science

North and Lakeshore Campuses

Certificate: 2 Semesters

Diploma: 4 Semesters

The General Arts and Science Program is recommended if you fit into one or more of the following categories:

1. You have not yet made a definite career choice.

General Arts and Science has course options such as career planning which will help you make career decisions. As well, in some cases it is possible to "try out"* one or more program courses while you are enrolled in G.A.S.

2. You want to enter a Humber Career Program at a future date.

If you don't yet qualify for entry into a specific program or the program is already full, General Arts and Science will help you build basic learning skills while you earn general education and communications credits. These credits count towards most career diplomas.

3. You want to improve your basic academic skills.

Do you need to improve your basic academic skills? G.A.S. courses are specifically designed to build on and improve your writing, reading and mathematics skills. As a result, when you enter your career program you should do even better.

4. You would like to prepare for university admission.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- Admission to Focuses:

The student must meet the general admission requirements of the General Arts and Science program and in addition must be recommended by the program coordinator from the career program area. Applicants to the different focus areas of General Arts and Science must initially have applied to the focus program. (ie. music focus: student must have initially applied to the music program.)

Curriculum

Semester 1

Communications or Language Skills - plus a variety of skills development courses such as Basic Math, Social Science, Effective Reading and Applied Psychology.*

Semester 2

Communications - plus general education courses such as Sociology, Literature, Psychology and Canadian Studies.*

Questions? Want help or information? Call the G.A.S. Program Coordinator at 675-3111 ext. 4498 North Campus or 252-5571, ext. 3216 Lakeshore Campus.

General Studies

Like most post-secondary students you will be required to complete General Studies courses before graduating. General Studies classes are composed of students from a variety of different programs. These courses are designed to broaden your understanding of your social, cultural, political and economic environments.

General Studies courses are drawn largely from the areas of Social Sciences, Humanities and Literature. Examples of courses include Psychology, Philosophy, Sociology, Canadian Literature, Film Study, and Politics. Between six and ten courses are generally offered in each timetable module. You will need to obtain your timetable or contact your Program Coordinator to determine which specific courses are available in your timetable module. Course descriptions of all the General Studies offerings are described at the end of the Human Studies section in this calendar.

Language and Mathematics Development Centres

Humber has established facilities at four campuses to help students who are weak in the basic skills of English and Mathematics.

Lakeshore Campus

The Lakeshore Campus houses two Communications Labs that offer assistance to post-secondary and Academic Upgrading students needing extra help in English.

The lab servicing post-secondary students is located in Room B204 and is open during normal day-time operations - Monday to Friday.

Assistance for Academic Upgrading students is available in Room B202 from 9:00 - 3:20 p.m. - Monday to Friday.

Keelesdale Campus

At the Keelesdale Campus, Academic Upgrading and College Preparatory and T.U.P. students are provided with a Communications Centre designed to help them achieve the required English standards which are necessary for successful completion of their program. The centre is located in Room A112 and is open from 9:00 - 12:00 noon daily and 1:40 - 3:20 p.m. except Wednesdays and Thursdays.

North Campus

The North Campus has two facilities to help students who are weak in the basic skills of English and Math.

The Language Development Centre provides assistance to students needing extra help in English. They may drop in anytime for specific help on a problem or they may come on a regular basis to work on a program we will design to meet their individual needs.

The Math Development Centre offers Basic Math courses for students whose pretests have shown their skills to be weak. There is also some individualized help offered on a drop-in basis.

The Math Development Centre is located in Room E345, and the Language Development Centre is located in Room E344. They are open from 9:00 - 4:15 p.m. Monday to Thursday, and Friday from 9:00 - 3:20 p.m.

Queensway A Campus

The Queensway A Campus offers a Writing Clinic facility to full-time registered students who require additional help in reading and writing skills. This clinic is located in Room A149 and is open on Monday and Thursday from 12:40 to 3:20 p.m., Tuesday from 11:45 - 2:25 p.m. and Wednesday from 1:30 - 4:15 p.m.

Languages

Committed to meeting the needs of an ever-growing population of French-speaking students, Humber offers many courses in French. In this way, graduates of high school immersion programs can maintain and improve their level of proficiency in the French language.

Plus vous serez nombreux, plus nous pourrons vous offrir de cours en français Communiquez avec Raymond Doucet pour plus de details 675-5006.

Nous offrons déja un programme: la Bureautique.

Programmes en Français/French Programmes/ Nouveauté/Défi/Carrière

Lakeshore

32 Semaines
La Bureautique

Renseignements généraux

La Bureautique: fonctionnement des systèmes informatisés est un programme de 32 semaines qui permet aux participants de se familiariser de façon théorique et pratique avec des systèmes informatisés de bureau.

Les cours se donnent en français et le travail pratique se fait avec des logiciels bilingues.

Conditions d'admission:

DESO Diplôme d'Etudes Secondaires de l'Ontario au niveau general, ou l'equivalent ou etudiant mature

ou Niveau 4: Cours Préparatoires à la Formation Professionnelle

Dactylo = 40 mots/minute

Titres des professions:

Operateur sur ordinateur

Vendeur-technicien du traitement électronique des données

Secrétaire de direction

Secretaire spécialiste du traitement des textes

Aide Financière

La Main d'Oeuvre du Canada

Ce programme a été approuvé par la Commission de l'Emploi et de l'Immigration du Canada. Si vous devenez éligible, la commission paiera

Programmes en Français/French Programmes/Nouveauté/ Défi/Carrière (cont'd.)

les frais d'inscription et vous remettra une allocation hebdomadaire pour la durée des cours. Pour obtenir des renseignements au sujet de l'éligibilite au programme, contacter le Centre d'Emploi du Canada.

Pret aux Etudiants

Le gouvernement de l'Ontario possède un plan de prêt pour les étudiants qui y sont eligibles. Les conditions d'admission au plan sont:

- avoir 18 ans ou plus et
- être citoyen canadien ou posséder un statut officiel d'immigrant.

Pour obtenir des renseignements au sujet des prêts et subventions, contacter le Financial Aids Office de Humber College au (416) 675-3111 ou 252-5571.

Curriculum

1er Semestre		Credits
233-071	Eléments de base en informatique	4
231-049	Programmation des chiffriers	4
221-013	Initiation à la comptabilité	4
268-012	Traitement de textes 1	8
941-125	Rédaction de rapports	4
268-014	Le bureau et les systèms informatisés	4
941-136	English Report Writing	4

2ième Semestre		Credits
268-116	Processus d'enregistrement	4
268-115	Systèmes de communication des données	4
233-149	Traitement des textes et des données en finances et en comptabilite	4
268-112	Traitement de textes 2 (avancé)	8
251-018	Relations interpersonnelles	4
251-005	Initiation aux affaires	4
941-127	Business Language	4

Pour des renseignements au sujet de ces programmes, contacter Raymond Doucet, (416) 675-5006.

Course Descriptions

A Question of Morality 923-133

The purpose of this course is to explore the problems involved in making moral and ethical decisions. The basic theoretical principles will be applied to important moral issues and we will study the role of schools in teaching morality.

Abnormal Psychology 924-202

Through the use of lectures, and audio-visual materials, this course will focus on a number of psychological perspectives. Then, through the use of the case method, a variety of abnormal conditions including schizophrenia, manic-depressive psychosis, sexual deviations, psychosomatic reactions, and situational disorders will be examined. Since this course does not have as one of its aims the preparation of therapists, treatment methods will be given only limited attention.

Aesthetics 932-106

The lectures will cover the basic philosophies of art and relate these by way of example to the history of art, architecture and design. Contemporary concerns will be covered by the students who will write two short papers on any of the topics outlined in the suggested readings.

Anthropology - An Introduction 925-101

Anthropology - the study of man - recognizes that man has devised many ways of coping with life whether in the jungles of the Amazon, the ice of the Arctic or the penthouses of Toronto. No "one way" of solving our constant concerns about self, others and how we relate to our environment is appropriate for all cultures. By investigating man in his teepees, mud huts and suburban bungalows we see how different people answer such questions as: is man innately aggressive; why do we have religion; is psychiatry really magic and witchcraft?

Applied Psychology 924-211

This course will provide students in the Law Enforcement & Security Program with the specific knowledge from the field of scientific psychology that applies most directly to law enforcement. Special emphasis will be placed on psychological knowledge and skills necessary for effective interaction with those clients who have been identified as psychologically abnormal. Students taking this course will have already successfully completed a course in Introductory Psychology as a prerequisite.

Canada and the Third World 922-123

This course will introduce students to the study of the Third World and Canada's involvement with these countries. The international structures of trade, investments, foreign-aid, and financial institutions, among other things, will be examined closely. It will explore the ties that bind the developing countries to Canada and the West, and the domestic factors which militate against economic growth.

Canada in the Twentieth Century 933-119

In 1900 Wilfred Laurier said "The Twentieth Century will belong to Canada as the Nineteenth belonged to the United States". Probably Laurier overstated the case but in 1900 Canada looked forward optimistically to growth and prosperity in the Twentieth Century. This course will show how Canadians participated in two world wars and a Cold War, how they were hit by the "Dirty Thirties" and how they have reacted to the Nuclear Age. Since life, including national life, is not all struggle the prosperous years and Canada's rapidly changing population and customs after 1945 will receive special attention.

Canada's Native People 925-204

The purpose of this course is to review the history of the relationship between native Canadians and the Government, and to examine what changes are occurring and likely to occur with respect to the relationships between native Canadians and the rest of Canadian society.

Canadians: A New Look at the Canadian People 921-104

This course takes a new and original approach to Canadian studies. Taken from a "people's" perspective, it has been designed specifically to inform you, as a Canadian and a community college student, of what you need to know about your society to survive and prosper in Canada.

Children's Literature 955-101

The student who is interested in children and what they read, or have read to them will gain a detailed understanding of the multifaceted world of children's literature. Books which appeal to early childhood, the primary school child and the young adolescent will be discussed. Specific emphasis will be placed on how to select and use books practically and creatively with children.

Communications for Health Sciences 941-215

Communications is designed to help develop writing and speaking skills which become an invaluable asset in meeting the requirements of the College and the Health Science field. You will master basic research and writing techniques and be required to write clearly and simply. You will try to develop a concise, concrete and logical style. You will also learn effective speaking techniques which will give you the confidence to handle the essential tasks required by your job.

Communications 1 941-115

A course in the fundamentals of verbal and written communication, including report and letter writing and public speaking.

Communications 1 941-102

This course develops the writing skills which will help students meet the requirements of both college and their chosen vocation. Emphasis is placed on mastery of basic research and writing techniques for clarity. There is also opportunity for continued development of reading comprehension.

Communications 2 941-103

This level emphasizes research and vocational planning. Students learn to present ideas clearly, concisely, and effectively both in writing and in speaking. At this level, style, form and creativity are stressed. In addition to writing business correspondence and reports, students prepare a career-related document file.

Computers and Society 923-135

This introductory course examines the uses, both real and projected, of computers and their influences on society. There will be a brief overview, during the first few meetings of the course, of basic computer concepts including hardware, programs and languages; however, the major focus on the course is on the sociological implications of the use of computers in such fields as education, business, transportation, communications medicine and the home.

Contemporary Art in Canada 971-102

This course introduces students to contemporary Canadian art and artists and examines both sources of information and methods used to create works of art. A wide range of representational, abstract, and conceptual works are examined. This course is based, in part, on the "VISIONS" series from TV Ontario.

Conversational French 1 962-101

The French courses encourage active participation by the student. Aided by textbooks, and special pronunciation tapes, students learn French as used in everyday situations. In French 1, the student acquires basic vocabulary and grammatical skills. It is a course designed for students with no background in French.

Conversational French 2 962-201

French 2 develops the fundamentals to more complex structures such as expanded questions and answers in past and future tenses.

Crime and Punishment in Literature 955-103

Through specific examples of myth and fiction, we will study individuals and groups that seem to have defied the laws of society. We will see some very unusual crimes and some equally unusual punishment.

Developmental Psychology 924-208

In this course, you will trace human development from conception to death. You will study the physical and the psychological growth of human beings throughout life. Included will be: the interaction of heredity and environment, the brain and its relation to behaviour, age group characteristics and physiological and psycho-

logical problems that appear from early childhood through the aging process.

Deviant Behaviour 923-109

Various kinds of behaviours in our society have traditionally been classified as "deviant", "wrong" or "immoral". We will examine examples of deviance in many areas and examine why these acts are seen as threatening to society. The questions "what is normal", "what is natural" will be explored in our attempt to understand "normalcy" and "deviance".

Effective Reading 941-114

Effective Reading is a course designed for the college student who possesses average reading skills but who realizes that proficiency in reading is essential for success both in college study and in career work after graduation.

Effective Speaking 941-110

Effective oral communication is one mode by which first impressions are created. This course attempts to help students perfect these skills so they can perform efficiently in both vocational and social situations.

Experience of Human Love 955-143

Everyone who is or has been part of a human couple knows that such a relationship is the source of some of life's most sublime joys and satisfactions - and also some of life's most poignant heartbreaks. Why is that?

Exploring Human Sexuality 923-205

This course has been designed to encourage the open discussion of human sexuality in a safe, non-threatening environment which will facilitate participation in the free exchange of ideas. Students will be encouraged to share their ideas and thoughts about issues of relevance to the class.

Famous Musicians 971-103

This course focuses on the life, time and style of some of the major figures of 18th, 19th, and 20th century music. The musicians covered include a mixture of classical composers, jazz musicians and popular rock musicians.

Fantasy and the Subconscious 955-132

This is a course for those who are not afraid to delve beneath the surface of things to seek out the profound meanings of life. Through reading and discussion, the student will discover how existence is shaped by myths, fantasies, memories, dreams, metaphors and symbols.

Film Study 955-102

This course is an introduction to the art and history of film. We will examine film as a 20th Century medium which reflects and perhaps influences the experiences of modern man. Works of established film makers will be used to provide concrete examples which will lead to a discussion of the structure, grammar, aesthetics, history and social significance of film.

Films and the Arts in Canada 955-128

Canadians are unique. We have our own history and tradition, literature, art, film, and lore. Through the literature and film of Canada, you will study, discuss and learn these aspects of Canada.

Folklore: Ritual and Romance 955-169

In this course the student will study the folklore of several countries. He/she will explore folk literature, dance, speech and crafts of many ethnic cultures.

History of Western Canada 933-108

Western Canada, comprising the two regions of B.C. and the Prairies, has always been an area of extreme. Whenever a boom raises the economy for a few years, a deep slump and high unemployment follows almost inevitably. Changes like these have fueled anger, dismay, alienation and political protest ever since the regions were settled. In this course, the geographic, economic and historic reasons why the West continues to be significantly different from Ontario will be explored.

Human Relations 934-101

Most living requires interaction with people - at work, socially and personally. This course gives you the opportunity to learn more about such interactions. The student will be guided, together with others in the class, into seeing how your behaviour affects others, and how the behaviour of others affects you.

Human Relations (RNA-OR) 934-103

A specialized course in Human Relations is included in this program. The major emphasis of the course is to deal with specific work situations, the difficulties of close team co-operation both to the individual and the team. The effects of stress, ways of resolving interpersonal conflicts and effective communication are emphasized.

Human Resources Develop. for Law Enf. 934-129

The role of the contemporary law enforcement officer, in today's society is an extremely complex one. The police officer, to be successful in his tasks must be flexible in his behaviour in dealing with varied situations. The public has many expectations which are placed upon police officers. This can create stress for the officers in trying to fulfill expectations of the public. In this course, we will examine the multi-faceted role of the police officer, and what skills are necessary to be effective on the job. The focus of this course will be the practical application of interpersonal communication skills, which will benefit law enforcement personnel. The willingness of students in this course to participate in classroom activities, utilizing these skills, is an important part of the class process.

Humour in Literature and Other Media 955-197

This course will explore the world of laughter and the comic. Through a study of T.V., radio, film, recordings, critical works, and various literary selections, Humour in Literature and Other Media will examine the assorted philosophical and psychological explanations for laughter and theories of the comic.

International Politics 922-203

This course focuses on a study of international politics. Important aspects of the world's political scene, including the triangular superpower relationship of the United States, the Soviet Union and China will receive attention.

Introductory Sociology 923-101

Sociology is a science concerned with the structure of human organization and the sub-systems of human relationships. It looks for sources of human behaviour in an individual's social "history". It is this interaction with other people and the systems and institutions created and operated by people within a particular cultural environment that plays a major part in shaping behaviour.

Language Skills 941-105

Most students must complete Communications 1 and 2 as part of their program. On the basis of a pretest, students may be required to take Language Skills before Communications 1. The primary aim of this course is to help students improve their writing. Since reading and writing are interdependent skills, the course will also devote some time to reading as a source of information for writing. Assignments will often integrate practice in both reading and writing. This course will emphasize sentence structure but will introduce the entire writing process. With each assignment, students will be taught to choose and limit their topic and define audience and purpose for writing.

Literature For the '80's 955-195

The process of growing up in Canada encompasses several themes. Through a consideration of different Canadian writings you will study and discuss these themes i.e. man in conflict with himself, nature and his fellowman, as well as regionalism as it is presented in the selection of writings.

Logic 932-201

This course will help the student to develop correct thinking patterns and to distinguish good arguments from bad ones. The main objectives of the course are to familiarize the student with the rules and standards of sound reasoning, without which meaningful communication is impossible.

Macroeconomics 926-221

Macroeconomics is the study of Canadian production and spending, and how the government controls the economy to achieve certain basic goals which are in the interest of all Canadians. The purpose of this course is to enable the student to reason out and make sound judgements of those issues which s/he will face as an individual and a voter through the development and application of proven principles.

Magazines as Literature 955-162

Concentrating on the current international field of quality journalism, the course centres around the American and British elite, the best journalism available in all areas - politics, entertainment, fashion, sports, and human interest. Other aspects of the press will be discussed: layout, design, and photography. The popular press (Time, Newsweek, etc.) and the role of specialty magazines will frequently form a basis for classroom discussion.

Man and His Environment 921-105

This introductory course, designed for non-science majors, explores many of the complex issues related to man and his environment. After reviewing the historical background, political, economic and social implications will be integrated with scientific information in order to examine ecology, the natural world, and 'pollution".

Marriage and the Family 925-105

The family, no matter how it is structured, is the most basic social institution in all societies. In most Western societies, including our own, very little attention is given to the training of young people in preparation for forming their own families. This course will focus on family formations, how they can cope with stresses such as marital discord, child raising, family finances, family disputes, separations, divorces.

Micro Economics 926-121

Microeconomics is the study of business, and the market system in which it operates, and how individuals operate and affect the market system. Microeconomics focuses on consumer demand, supply and prices, role of big business labour unions and the economics of particular industries such as oil.

Mind Game, The 941-109

This course will develop your ability to think; to isolate the extraneous and to focus on the information necessary to make a decision. It will teach you to spot fallacies in reasoning, to form your hypothesis and support it, and to straighten out your thinking process.

Moral Conflicts in Modern Society 932-113

This course, based on the O.E.C.A. series "The Moral Question", will examine some of the perpetual problems and conflicts that trouble modern man; abortion, capital punishment, censorship, sexual permissiveness, euthanasia and war.

Multiculturalism: Faces of Toronto 925-111

Canada has chosen to encourage and support the development of the culture mosaic. The government has said "A policy of multiculturalism must be a policy for all Canadians". But is this policy accepted and supported by Canadians? The course will study those factors which have a bearing on multiculturalism in Canada today.

Music of Man 970-101

This course is designed for the student who has an interest in the art of music, but has little or no prior training or experience in music. Basic terminology, the role of the composer and performer, and various styles of music will be discussed.

Myth and Mysticism 955-141

This coures is a dark journey into the soul and an exploration of the adult never-never worlds of the imagination, the subconscious and the supernatural; it is a probe into the "underworld" of our unconscious.The symbols of myth and magic, religion and superstition will be explored, utilizing legends from ancient times to the literature of the modern day.

Nature of Ontario 927-117

This course is designed to give the student a working knowledge of the nature of Ontario; nature as in the character of the province and nature as a study of the workings of the physical environment of the province. To facilitate this study, the province will be examined as a set of interacting systems, of which man is an integral part.

Novel and the Film, The 955-193

This course examines contemporary novels and the films based on those novels in order to discern how recent writers and film makers view our world. An analysis and comparison of these works should serve as a basis for understanding various psychological, sociological and philosophical perspectives on today's world.

People as Consumers: Getting the Most for Your Money 926-113

The purpose of this course is to examine the role of the consumer in the traditional buyer-seller-market relationship. It does so by drawing and integrating concepts from economics, psychology and sociology. This course will focus on the relative power and position of the consumer.

Personal Finance 926-114

This course deals with the basics of personal financial planning in the Canadian context. The myth that you have to have a lot of money before you worry about what you do with money is passe. From basic budgeting to commodity investments, this course covers it all.

Philosophy of God & Man 932-112

In this course we will study what the greatest thinkers of West and East had to say about the nature and meaning of man (Philosophy of Man), how man relates to man (Ethics and Politics), and how man relates to God both through reason, and life experience alone (Metaphysics) and through religion.

Philosophy: An Introduction 932-101

This course will review what the greatest thinkers of East and West have to say on the basic topics of philosophy. We will cover God, man, religion, ethics, politics, logical thinking and truth, and the unknown universe, through lectures, seminars, discussions, films and guest lectures.

Physical Geography 927-111

This course is a study of the geography of the physical world and of the earth as the interaction of systems. Specific topics include the earth-sun system, climate and weather, the water cycle, earth plates and earthquakes, rocks and soils, the physical and biological systems and the science of ecology.

Political Science for Public Relations 922-119

Refer to course description of Political Science for Radio Broadcasting (922-107).

Political Science for Radio Broadcasting 922-107

To introduce the student to the broad and complex subject of contemporary government and politics of the province of Ontario in a way that will: 1) provide a better understanding of political behaviour and institutions; 2) serve as a foundation for possible future studies in political science; and 3) provide to students, standards for critical evaluation of the decision-making process in future roles.

Political Science 1 for Journalism 922-102

Refer to course description of Political Science for Radio Broadcasting (922-107).

Political Science 2 for Journalism 922-206

To provide insight and information on the growth and development of national political parties in Canada. As we have evolved into a multi-party political system, it is useful to trace through the historical patterns of parties in Canada. The course will also focus on the men and women as well as the issues at the center of the political system.

Population and Social Change 923-124

This course provides students the opportunity to study the problems associated with world overpopulation. Topics such as the problem of food scarcity and world hunger, fertility control, social change, job security and technology, aging, immigration and world stability will be studied.

Psychology - Abnormal 923-202

Through the use of lectures, and audio-visual materials, this course will focus on a number of psychological perspectives. Then, through the use of the case method, a variety of abnormal conditions including schizophrenia, manic-depressive psychosis, sexual deviations, psychosomatic reactions, and situational disorders will be examined. Since this course does not have as one of its aims the preparation of therapists, treatment methods will be given limited attention.

Psychology - An Introduction 924-101

The purpose of this course is to introduce you to some basic principles of human behaviour, and through discussion to relate these principles to our own experiences, thereby gaining a better understanding of ourselves and others.

Psychology - Social 924-115

Social psychology concerns itself with the social nature of the human person; those social influences that have affected, and continue to affect our behaviour. We will examine the media - our music,television, and movies. What are their effects on our sex role identity? How do they affect our predispositions toward violence and aggression? The psychology of bystander apathy, blind obedience to authority and strength are examined. Other topics include humour, leadership, stress, non-verbal communication and self-esteem.

Racial and Ethnic Group Relations 925-203

This course has been specifically designed for students intending to enter occupations which have a significant amount of interaction

with persons from differing backgrounds which usually place them in a minority group status. It is believed by many social scientists, government leaders and law enforcement officials that a knowledge of the cultural differences of people and a grasp of the nature of prejudice and discrimination is essential if we are to ward off confrontations and decrease racially-based hostilities.

Religions of the World 935-101

This course will familiarize students with some of the major religions which exert a great influence upon mankind and make them aware of the thought-patterns and significance of the phenomena of religion. The course consists of two parts: (1) A study of basic tenets, beliefs, practices, philosophies and histories of major religions. (2) A critical analysis of general questions relating to religion, such as: existence of God, problem of evil, after-life, religious experience, religion vs. science and philosophy, etc.

Science Fiction - It's Your Future 955-175

When Mary Shelley wrote Frankenstein in 1817, it was inconceivable that man would ever be able to reproduce himself artificially. Today, scientists have made into fact what was only science fiction in Mary Shelley's era. Now that cloning, organ transplantation, test-tube babies, and robotics have arrived, more and more people are discovering that science fiction has a valuable role to play in shaping an awareness of the benefits and dangers of technological change.

Short Story, The 955-174

The aims of this course are to read, talk and write about short fiction, i.e. stories which can usually be read, understood and appreciated in one sitting. Each story will be dealt with as something which illuminates our own lives as much as presenting the published thoughts of a writer.

Sport and Society 923-129

This course examines sport from a sociological perspective. It analyses human behaviour within the context of the institutions of sport, including the areas of competition and socialization. The issue of upward social mobility through sports and the influence of business and politics on sport will be studied as well as coaching, the role of minorities and women in sport.

Tales of Terror 955-191

Tales of Terror explores the development of horror literature throughout the ages. From the 18th century Gothic works like The Castle of Otranto, through the Victorian world of Dracula, to modern masters of fright like Stephen King, you will discover how writers evoke fear for your dreadful delight in the novel, short stories and poetry, and see how the Gothic themes have influenced modern horror films.

Techniques of Writing Creatively and Professionally, The 941-111

This course is designed to introduce students to the various disciplines of writing for radio, television, newspapers, and magazines. To this end, students will examine and analyze news reports, articles, plays and short stories. Students will study the techniques of description, characterization, plotting, and dialogue writing.

Technological Change & Society 923-134

The purpose of this course is to help students understand and critically assess the impact of technological change. Emphasis will be placed on the economic and social consequences of new technologies and their effect on society as a whole over the next decade.

The Canadian Experience 955-165

This course is designed to help you understand how and why people create myths and legends and see how they apply to us today. Class discussions and presentations include comparisons drawn from the Eskimo, the English, the French and the Indian.

The Great Thinkers 932-114

This course will introduce the students to the major makers of Western thought with some references to their Eastern counterparts. The students will be given a guideline, a chart of the great thinkers and a bird's-eye view of their major ideas.

The Japaning of Canada 922-120

No country, aside from the U.S.A., is so strongly influencing the Canadian economic and political scene as is the rising power and presence of Japan. This course will examine effects on such fields as: technology, trade, labour/management relations, worker productivity, education, and government policies.

Understanding Movies-Critical Approach 955-199

Understanding Movies is a course designed to increase film appreciation. Visual techniques of film involving photography, lighting, editing, etc. will be discussed and the class will view films which illustrate these techniques. A discussion of the basic problems that face all film-makers in telling a story in visual terms will be an essential element of the course.

Unions, Employers and Society 922-130

The purpose of this course is to introduce students to the Canadian union movement. Students will study the history and development of unions in Canada and explore the social, political and economic conditions that contributed to their growth.

Values and Choices 934-119

Students will become more acquainted with their own sense of values--the things in life they wouldn't want to live without. The class will also explore what other well-known individuals and societies have valued and what results these beliefs have had on their lifestyles and opportunities. Interpersonal skills and power of observation will be developed during discussions of responses to various art forms (painting, popular song, film and poetry) encountered.

Ways of Shaping Our World 932-115

This course explores our responsibility in shaping the future of our technological world. The consideration will be divided into three parts: 1) Ways of Shaping the World; 2) Moral Rules for Acting in Our World; 3) Shaping Our World: applications of parts 1 and 2--to some specific problems in our world.

Why Nations Go To War 922-117

In this course you will learn about the political causes of war, the utility and role of war, and generally about the prospects for peace in the nuclear age. World and regional wars will be covered, as well as nuclear technology and its military and civilian applications, nuclear weapons arsenals of the major powers and disarmament and arms limitation/reduction measures.

20th Century History 933-118

History courses play an important role as background for students in understanding contemporary issues. To understand Canada today, one must understand how it came to be. Only with such understanding can there bedirect interest and practical involvement in the political life of our nation. The study of history will provide the student with an integrated view of his/her society and its development.

Technology Programs

Technology expands in all directions. At Humber College, you can get training in the area of your choice and for the level at which you wish to work. For instance, you can take a four-semester program in the chemical field to become a technician. Or you may decide to go for an extra year to complete technologist training.

The relationships in industrial and technical jobs can vary but it is generally understood that a technician may work for a technologist who may work for an engineer.

Humber College also offers several short programs, usually 40 weeks in length, for which the admission requirements are simply to know English and some basic mathematics at a grade 10 level.

If you feel an apprenticeship is more suited to your goal, you should contact the Skills Development Branch of the Ministry of Colleges and Universities or your local Canada Manpower Centre to get details. We provide apprentice-training in plumbing, sheet metal, steamfitting, tool and die, general machinery, electricity (construction and maintenance), and hairdressing.

Finally, if you must work while you study, you can enroll in our part-time technical advancement programs. The diplomas offered on a part-time basis are identical to full-time diploma programs.

Aerial Survey Technician

North Campus

Three semesters beginning September

Graduates of this program work with photographs taken from the air and use them to develop maps and plans. These maps are used by government agencies and others to produce maps, indicate landforms and plot streams, forests and other natural and manmade features.

As well as learning the basic skills of land surveying, you will learn to operate most types of stereo plotting instruments in aerial mapping. By overlapping aerial photographs on special viewing equipment you will produce a three-dimensional view to compile maps showing roads, buildings, streams, and contours of the land.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics at the general level is strongly recommended)
- one senior technical course (drafting or technical drawing are strongly recommended)

Job Opportunities

As an Aerial Survey Technician you may find employment in an aerial mapping company or with a provincial or federal government agency. Career alternatives include Plotter Operator or Draftsperson.

Curriculum

Semester 1 (26 hours/week)	Credits
330-383 Photogrammetry 1	3
330-495 Photogrammetry 2	4
330-038 Surveying 1	
380-230 Mathematics 1	4
330-425 Survey Drawing 1	2
330-486 Survey Computations 1	2
941-102 Communications 1	4

Semester 2 (26 hours/week)	Credits
330-460 Advanced Photogrammetry	4
330-372 Air Photo Interpretation	3
330-497 Cartography	4
330-039 Survey 2 *Pre-Req:* 330-038 Surveying 1	6
330-426 Survey Drawing 2 *Pre-Req:* 330-425 Survey Drawing 1	2
330-579 Computer Applications 1	3
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4

Semester 3 (10 hours/week)	Credits
330-128 Practical Photogrammetry	10

(This is a concentrated, five-week, 6 to 7 hrs/day, course commencing at the end of the Winter Semester).

Architectural Design Technician (Co-op Program)

North Campus

Four academic semesters and one co-op work term semesters beginning September

Each day of our lives, much of what we do and feel is directly related to architecture. It controls the way we move about, the comfort in which we live, work and study, and shapes everything from a small cabin to the largest of cities. Architecture is a blending of art and technology, and a very exciting field in which to work. If you enjoy creating things, thinking about buildings and drawing--and if you have a technical interest in how things are built, then the Architectural Design Programs are for you.

An Architectural Design Technician must develop a diverse range of skills to participate in this exciting profession. You will learn to draw appealing renderings and construct models of a variety of buildings of which you will design as well as produce the technical drawings required for their construction. You will learn about the laws and regulations that shape today's buildings, the engineering principles that give them structure, the mechanical systems that control a building's comfort, the materials used to construct buildings and how to estimate their cost. You will use computers to assist in some of these tasks, and will produce a variety of drawings on them.

Each semester you will design and develop a different building type including residential, industrial, commercial, and multi-use buildings. We will help you to present your design ideas on paper, and to record through drawings how these ideas will take physical shape.

This program is a co-op program which means that you will have the opportunity to gain real-life experience in this field during your work terms. These working experiences will give you a first-hand insight to the variety of job opportunities that you might explore, as well as provide you with invaluable working knowledge.

Co-operative Education Programs/Technology

Paid work term opportunities, that are related to your chosen field of study, are arranged for you and subsequently monitored by, the Department of Co-operative Education/Technology.

Certain academic requirements must be maintained in order for you to be eligible for co-op job placement. If these are not met, or if economic conditions dictate, you may proceed in our non-co-op program option.

Your eligibility for graduation is subject to the completion of all program course requirements and successful

Architectural Design Technician (Co-op Program) (cont'd.)

completion of all scheduled co-op work terms.

All Architectural students will be initially enrolled as Architectural Technician students. You will graduate as an Architectural Technician after successful completion of two years of study. Qualified students may continue into the third year of one of our Architectural Technology options and may graduate as an Architectural Technologist.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above the general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics at the general level is strongly recommended)
- one senior technical course (drafting or technical drawing are strongly recommended)

Interests and Skills

- ability to imagine three dimensional spaces
- strong technical interest in how buildings are constructed
- serious interest in producing detailed drawings
- an aptitude for mathematics
- good communication skills

Job Opportunities

The architectural profession is a diverse one and offers many varied opportunities for rewarding employment. As a graduate Architectural Design Technician, you may work in an architectural office helping to produce design and construction documents, or with a contracting firm helping to control the actual construction of the building. You may work with a small design firm that specializes in kitchen renovations, or become a sales representative for a construction equipment manufacturer. You could become a building inspector, or develop technical details for a window manufacturer.

Curriculum

Residential Construction

Semester 1 (25 hours/week)		Credits
380-046	Math 1	4
330-539	Residential Drafting & Detailing	6
330-592	Arch. Graphics	3
330-541	Materials & Methods of Const. 1	3
	Communications 1	4
330-593	Architectural Design 1	2
	General Studies	3

Industrial Construction

Semester 2 (25 hours/week)		Credits
330-543	Industrial Drafting & Detailing *Pre-Req:* 330-539 Residential Drafting & Detailing	6
330-544	Materials & Methods of Const. 2	3
330-587	Architectural Structures 1	3
330-590	Architectural Environmental Systems 1	3
	Communications 2	4
380-200	Mathematics 2 *Pre-Req:* 380-234 Math 1	3
	General Studies	3

4 Month Co-op Work Term

Commercial Construction

Semester 3 (26 hours/week)		Credits
330-595	Commercial Drafting & Detailing	8
330-548	Materials & Methods of Const. 3	3
330-594	Architectural Design and Presentation	4
330-588	Architectural Structures 2	3
330-591	Architectural Environmental Systems 2 *Pre-Req:* 330-546 Intro. to Environmental Systems	4
330-552	Architectural CADD 1 *Pre-Req:* A through knowledge of architectural drafting and detailing	3
380-201	Mathematics 3 *Pre-Req:* 380-199 Math 1	3

Multi-Purpose Construction

Semester 4 (24 hours/week)		Credits
330-553	Arch. Drafting & Detailing	8
330-589	Architectural Structures 3	3
330-555	Arch. CADD 2 *Pre-Req:* 330-552 Architectural CADD 1	3
330-556	Intro. to Surveying	3
330-557	Specifications & Estimating	4
	General Studies	3

Architectural Design Technologist (Co-op Program)

North Campus

Six academic semesters and four co-op work term semesters beginning September

Each day of our lives, much of what we do and feel is directly related to architecture. It controls the way we move about, the comfort in which we live, work and study, and shapes everything from a small cabin to the largest of cities. Architecture is a blending of art and technology, and a very exciting field in which to work. If you enjoy creating things, thinking about buildings and drawing--and if you have a technical interest in how things are built, then the Architectural Design Programs are for you.

The basic skills you will need to develop in order to participate in the architectural

Architectural Design Technologist (Co-op Program) (cont'd.)

design profession as an architectural technologist are developed in the first four semesters and two work term semesters of the Architectural Design Technician Program. Please see that program's listing for further details.

You will, however, go on to learn how to render presentation drawings more fully, how the landscape can be designed, and how interiors are planned. You will learn how cities developed, what laws govern their growth, and how the history of architecture affects today's designs. You will also learn how to preserve historical buildings and further develop drawing skills on both paper and computers.

This program is a co-op program which means that you will have the opportunity to gain real-life job experience in this field during your work terms. These working experiences will give you a first-hand insight to the variety of job opportunities that you might explore, as well as provide you with invaluable working knowledge.

Co-operative Education Programs/Technology

Paid work term opportunities, that are related to your chosen field of study, are arranged for you and subsequently monitored by, the Department ofCo-operative Education/Technology.

Your eligibility for graduation is subject to the completion of all program course requirements and successful completion of all scheduled co-op work terms.

Admission Requirements

- successful completion of Humber's Architectural Design Technician program or upon recommendation of the academic division

Interests and Skills

- ability to imagine three dimensional spaces
- strong technical interest in how buildings are constructed
- serious interest in producing detailed drawings
- an aptitude for mathematics
- good communication skills

Job Opportunities

The architectural profession is a diverse one and offers many varied opportunities for rewarding employment. As a graduate Architectural Design Technologist, you will be working at a more advanced level than Architectural Design Technicians and may work in an architectural office helping to produce design and construction documents, or with a contracting firm helping to control the actual construction of the building as project coordinator or estimator. You may work with a small design firm that specializes in kitchen renovations, or become a sales representative for a construction equipment manufacturer. You could become a building inspector, or develop technical details for a window manufacturer.

Curriculum

For first four semesters, see page 149

8 Month Co-op Work Term

Semester 5 (25 hours/week)		Credits
330-558	Arch. Design Drafting (Residential)	8
330-559	Rendering	4
330-560	Life Cycle Costing	3
330-561	Intro. to Landscape Arch.	4
330-575	Intro. to Urban Planning	3
330-562	CADD Studio 1	3

4 Month Co-op Work Term

Semester 6 (25 hours/week)		Credits
330-563	Arch. Design Drafting (Mixed Use)	8
330-406	Architectural Conservation and Restoration	3
330-564	Introduction to Interior Design	4
330-565	Development & Planning	3
330-566	Architectural History	3
330-567	CADD Studio 2	3

Architectural Technologist Construction Administration (Co-op Program)

North Campus

Six academic semesters and four co-op work term semesters beginning September

If you are interested in the business management aspects of the construction process, this option within the Architectural Design Technologist (Co-op) Program will be right for you. The construction industry-- contractors, sub-contractors, architects, and engineers-- needs people who have a strong background in the subjects covered by the Architectural Design Technician Programme, but who also have more advanced training in the various aspects of construction administration.

You may be eligible to enter this option after completing the Architectural Design Technician Program. Please see that program's listing for further details.

You will, however, go on to determine the exact quantities of materials needed for any building project, and will learn how to determine and control the cost of those materials. You will learn to administer the various contracts that govern construction practices, and to understand the laws and planning regulations that are in effect. You will use computers to produce drawings as wel as construction-related documents.

This program is a co-op program which means that you will have the opportunity to gain real-life job experience in this field during your work terms. These working experiences will give you a first-hand insight to the variety of job opportunities that you might explore, as well as provide you with invaluable working knowledge.

Co-operative Education Programs/Technology

Paid work term opportunities, that are related to your chosen field of study, are arranged for you and subsequently monitored by, the Department of Co-operative Education/Technology.

Your eligibility for graduation is subject to the completion of all program course requirements and successful completion of all scheduled co-op work terms.

Architectural Technologist Construction Administration (Co-op Program) (cont'd.)

Admission Requirements

- successful completion of Humber's Architectural Design Technician program or upon recommendation of the academic division

Interests and Skills

- ability to imagine three dimensional spaces
- strong technical interest in how buildings are constructed
- serious interest in producing detailed drawings
- an aptitude for mathematics
- good communications skills

Job Opportunities

The architectural profession is a diverse one and offers many varied opportunities for rewarding employment. As a graduate Architectural Design Technologist, you will be working at a more advanced level than Architectural Design Technicians and may work in an architectural office helping to produce construction documents, or with a contracting firm helping to control the actual construction of the building as project coordinator or estimator. You may work with a contracting firm in quality control, quantity surveying, project inspection or job coordination, or becomes a sales representative for a construction equipment manufacturer. You could become a building inspector, or develop technical details for a window manufacturer.

Curriculum

For first four semesters, see page 149

8 Month Co-op Work Term

Semester 5 (25 hours/week)		Credits
330-596	Advanced Drafting (Residential)	8
330-560	Life Cycle Costing	3
330-575	Intro. to Urban Planning	3
330-562	CADD Studio 1	3
330-570	Construction Admin. (Contracting)	4
330-574	Business Management	3
330-562	CADD Studio 1	3

4 Month Co-op Work Term

Semester 6 (25 hours/week)		Credits
330-571	Advanced Drafting (Commercial)	5
330-406	Architectural Conservation and Restoration	3
330-565	Development & Planning	3
330-567	CADD Studio 2	3
330-572	Quantity Surveying & Estimating (Comparative)	4
330-573	Construction Admin. (Professional)	4
330-597	Architectural History	3

CHEMICAL

Careers in Chemistry

As a graduate from one of Humber's four Chemistry programs, you are qualified to join a scientific team initially as a junior member with the possibility of moving to a supervisory position. Employment after graduation usually falls into one of the following four major areas:

Analytical or Quality Control Laboratories

Your main function as an analyst is to ensure that all materials purchased or sold by your company meet certain requirements. You may determine if an ore contains enough gold to make mining operations economically feasible, or you may monitor the sulphur dioxide content of the city air. You may analyse blood samples in a forensic lab. To accomplish tasks of this nature, you will find that you must be familiar with the operation of specialized instruments. Humber's laboratories are equipped with gas chromatographs, infra-red spectrophotometers, atomic absorption spectrophotometers, nuclear magnetic resonance spectrometers and other equipment necessary for chemical analysis.

Technical Service and Sales

As a technical sales representative you will contact customers interested in the products your company manufactures. You may also occasionally trouble-shoot, service or set-up equipment purchased from your company. In some jobs you can get a company car and be called on to travel extensively.

Research and Development Laboratories

In a research laboratory you will take part in the development of new products or the improvement of established ones. You may assist in the development of 'everlasting razor blades', a deodorant that provides protection for a whole week, an antacid that absorbs 200 times its weight in excess stomach acid, a lead-free gasoline, a lubricating oil that eliminates oil changes and plastic bottles that will disintegrate in sunlight. The variety of projects you may be involved in is without limitation.

Pilot Plants and Production

Pilot plant experiments are performed on a much larger scale than most development laboratory experiments. Pilot plant experiments usually involve working with up to several hundred pounds of materials.

If you are involved in production, you may operate a 'cat cracker' in an oil refinery, you may prepare and colour match several hundred gallons of paint, or you may be involved in the manufacture and packing of large quantities of measle vaccine. With your background from Humber College and additional experience, you can advance to a responsible position in this expanding field.

Chemical Laboratory Technician

North Campus

Four semesters with the first semester starting in January, May and September and the second semester starting in January and September

All Chemistry students are initially enrolled as Chemical Laboratory Technician students. They graduate as Chemical Laboratory Technicians after successful completion of two years of study. Qualified students may continue into the third year of the Chemical Laboratory Technician options and may graduate as Technologists.

As a student of this program you will acquire the skills and knowledge to analyse materials and products, synthesize basic organic compounds and prepare solutions, assemble and operate laboratory equipment, conduct routine tests, prepare graphs and report results in a wide variety of research and testing functions.

You may be required to place refundable deposits on manuals and other items supplied by the College.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- minimum of one senior science, general level (chemistry and physics are strongly recommended)

Job Opportunities

You may be employed in industries such as: Petroleum, food and beverage, steel, pharmaceutical, distillery and brewery, paper or government agencies such as: The National Research Council, Atomic Energy, Ontario Hydro, Ministry of the Environment, etc. Typical job functions include quality assurance, research and development, technical sales and service, production and process control. As an alternative, you may continue for a third year in one of our chemical technology programs, if you can meet the required high standards.

Curriculum

Semester 1 (25 hours/week)	Credits
380-236 Mathematics for Chem. Ty.	6
340-153 Chemistry (Intro)	5
380-237 Physics for Chem. Ty.	4
941-102 Communications 1 *Pre-Req:* 941-205 Introductory Communications	4
General Studies	3
General Studies	3

Semester 2 (25 hours/week)	Credits
340-149 Stoichiometry *Pre-Req:* 340-153 Chemistry (Intro)	3
380-238 Electrical Measurements *Pre-Req:* 380-237 Physics for Chem. Ty.	4
340-055 Organic Chemistry 1 Lecture *Pre-Req:* 340-153 Chemistry (Intro)	2
340-056 Organic Chemistry 1 Lab *Pre-Req:* 340-153 Chemistry (Intro)	4
340-154 Chemistry *Pre-Req:* 340-153 Chemistry (Intro)	4
340-123 Introductory Microbiology *Pre-Req:* 340-153 Chemistry (Intro)	4
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4

Semester 3 (25 hours/week)	Credits
340-155 Organic Chemistry 2 Lecture *Pre-Req:* 340-055 Organic Chemistry 1 Lecture, 340-056 Organic Chemistry 1 Lab	3
340-061 Organic Chemistry 2 Lab *Pre-Req:* 340-055 Organic Chemistry 1 Lecture, 340-056 Organic Chemistry 1 Lab	4
340-058 Analytical Chemistry 1 Lecture *Pre-Req:* 340-149 Stoichiometry	4
340-156 Analytical Chemistry 1 Lab *Pre-Req:* 340-149 Stoichiometry	6
340-157 Methods of Microbiology *Pre-Req:* 340-123 Introductory Microbiology	5
380-206 Calculus 1 *Pre-Req:* 380-205 Mathematics 2	3

Semester 4 (25 hours/week)	Credits
340-150 Physical Chemistry *Pre-Req:* 340-149 Stoichiometry	3
380-192 Comp. Prog. for Chem. Ty. *Pre-Req:* 380-236 Mathematics for Chem. Ty.	3
340-062 Lab Instrumentation *Pre-Req:* 340-149 Stoichiometry	4
340-063 Lab Instrum. Appl's. *Pre-Req:* 340-149 Stoichiometry	4
340-158 Environmental Microbiology *Pre-Req:* 340-123 Introductory Microbiology	5
380-220 Statistics *Pre-Req:* 380-236 Mathematics for Chem. Ty.	3
General Studies	3

Chemical Technologist

North Campus

Six semesters with the first semester starting in January, May and September and the second semester starting in January or September

All Chemistry students are initially enrolled as Chemical Technician students. They graduate as Laboratory Technicians after successful completion of two years of study. Qualified students may continue into the third year of one of the Chemical Technology options and may graduate as a Technologist.

As a graduate technologist you will acquire more advanced theoretical and practical knowledge of industrial processes and equipment. You will develop higher level problem solving skills which will enable you to work more independently and will enhance your opportunities for promotions to supervisory functions.

Admission Requirements

- successful completion of Humber's Chemical Laboratory Technician program with an average of 70%

Job Opportunities

As a graduate Technologist you may be employed by the same organizations which hire our Technicians. During an initial training period you may be doing similar tasks. Demand for Technologists is generally stronger and you may find a wider range of employment opportunities and an increased potential for career progression.

Curriculum

Semester *1, 2, 3 & 4 are the same as Chemical Laboratory Technician curriculum - see page 152

Industrial Option

Semester 5 (25 hours/week)	Credits
340-066 Analytical Chem. 2 *Pre-Req:* 340-058 Analytical Chemistry 1 Lecture	4
340-159 Analytical Chem. 2 Lab *Pre-Req:* 340-058 Analytical Chemistry 1 Lecture	5
340-160 Chem. Thermodyn. & Kinetics *Pre-Req:* 340-150 Physical Chemistry, 380-206 Calculus 1	4
340-161 Momentum & Heat Transfer *Pre-Req:* 340-150 Physical Chemistry	4
340-146 Instrumentation for Chemical Processes	4
340-163 Biochemistry *Pre-Req:* 340-061 Organic Chemistry 2 Lab, 340-155 Organic Chemistry 2 Lecture	4

Semester 6 (25 hours/week)	Credits
340-164 Industrial Organic Chem. *Pre-Req:* 340-061 Organic Chemistry 2 Lab, 340-155 Organic Chemistry 2 Lecture	4
340-071 Industrial Organic Chem. Lab *Pre-Req:* 340-155 Organic Chemistry 2 Lecture	4
340-165 Polymers & Composites *Pre-Req:* 340-155 Organic Chemistry 2 Lecture, 340-150 Physical Chemistry	4
340-144 Technical Report	1
340-166 Chem. Separation Processes *Pre-Req:* 340-150 Physical Chemistry	4
340-147 Princ. of Process Control *Pre-Req:* 340-150 Physical Chemistry	4
340-073 Biochemistry Lab *Pre-Req:* 340-061 Organic Chemistry 2 Lab, 340-155 Organic Chemistry 2 Lecture	4

Microbiology Option

Semester 5 (25 hours/week)	Credits
340-066 Analytical Chem. 2 *Pre-Req:* 340-058 Analytical Chemistry 1 Lecture	4
340-159 Analytical Chem. 2 Lab *Pre-Req:* 340-058 Analytical Chemistry 1 Lecture	5
340-160 Chem. Thermodyn. & Kinetics *Pre-Req:* 340-150 Physical Chemistry, 380-206 Calculus 1	4
340-163 Biochemistry *Pre-Req:* 340-061 Organic Chemistry 2 Lab, 340-155 Organic Chemistry 2 Lecture	4
340-127 Food Microbiology *Pre-Req:* 340-123 Introductory Microbiology	4
340-148 Microbial Genetics *Pre-Req:* 340-123 Introductory Microbiology	4

Semester 6 (25 hours/week)	Credits
340-164 Industrial Organic Chem. *Pre-Req:* 340-061 Organic Chemistry 2 Lab, 340-155 Organic Chemistry 2 Lecture	4
340-071 Industrial Organic Chem. Lab *Pre-Req:* 340-155 Organic Chemistry 2 Lecture	4
340-165 Polymers & Composites *Pre-Req:* 340-155 Organic Chemistry 2 Lecture, 340-150 Physical Chemistry	4
340-144 Technical Report	1
340-073 Biochemistry Lab *Pre-Req:* 340-061 Organic Chemistry 2 Lab, 340-155 Organic Chemistry 2 Lecture	4
340-068 Industrial Microbiology *Pre-Req:* 340-123 Introductory Microbiology	4
340-128 Microbial Ecology *Pre-Req:* 340-123 Introductory Microbiology	4

Engineering Option

Semester 5 (25 hours/week)	Credits
340-066 Analytical Chem. 2 *Pre-Req:* 340-058 Analytical Chemistry 1 Lecture	4
340-159 Analytical Chem. 2 Lab *Pre-Req:* 340-058 Analytical Chemistry 1 Lecture	5

Chemical Technologist (cont'd.)

340-160 Chem. Thermodyn. & Kinetics *Pre-Req:* 340-150 Physical Chemistry, 380-206 Calculus 1	4
340-161 Momentum & Heat Transfer *Pre-Req:* 340-150 Physical Chemistry	4
340-146 Instrumentation for Chemical Processes	4
340-162 Chem. Process Calculations *Pre-Req:* 340-150 Physical Chemistry	4

Semester 6 (25 hours/week)	Credits
340-164 Industrial Organic Chem. *Pre-Req:* 340-061 Organic Chemistry 2 Lab, 340-155 Organic Chemistry 2 Lecture	4
340-071 Industrial Organic Chem. Lab *Pre-Req:* 340-155 Organic Chemistry 2 Lecture	4
340-165 Polymers & Composites *Pre-Req:* 340-155 Organic Chemistry 2 Lecture, 340-150 Physical Chemistry	4
340-144 Technical Report	1
340-166 Chem. Separation Processes *Pre-Req:* 340-150 Physical Chemistry	4
340-147 Princ. of Process Control *Pre-Req:* 340-150 Physical Chemistry	4
340-167 Chem. Eng. Proc. Evaluation *Pre-Req:* 340-150 Physical Chemistry	4

Civil Engineering Technician (Co-op Program)

North Campus

Four academic semesters and one co-op work term semester beginning September

Do you like constructing things? Are you curious to learn how buildings, bridges, and dams are built and highways are designed? Do you like technical drawing?

The field of Civil Engineering includes all of these and more. Many of the things that are necessary for modern public society are designed and built by civil engineers and you could be a part of that process by enrolling in the Civil Engineering Technician (Co-op) Program.

You will learn how beams, trusses and columns are designed. You will learn to perform laboratory tests on soil, concrete and other materials to determine their suitability for various purposes. You will produce the technical drawings necessary for the construction of bridges, buildings and dams. You will learn how water purification and treatment plants are designed, and how to plan and survey the layout of roads and highways.

This program is a co-op program which means that you will have the opportunity to gain real-life job experience in this field during your work terms.These working experiences will give you a first-hand insight to the variety of job opportunities that you might explore, as well as provide you with invaluable working knowledge.

Co-operative Education Programs/Technology

Paid work term opportunities, that are related to your chosen field of study, are arranged for you and subsequently monitored by, the Department of Co-operative Education/Technology.

Certain academic requirements must be maintained in order for you to be eligible for co-op job placement. If these are not met, or if economic conditions dictate, you may proceed in our non-co-op program option.

Your eligibility for graduation is subject to the completion of all program course requirements and successful completion of all scheduled co-op work terms.

All Civil students will be initially enrolled as Civil Technology students. You will graduate as a Civil Technician after successful completion of two years of study. Qualified students may continue into the third year of one of our Civil Technology options and may graduate as a Civil Technologist.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics at the general level is strongly recommended)
- one senior technical course (drafting or technical drawing are strongly recommended)

Interests and Skills

- strong technical interest in how buildings are constructed
- serious interest in producing detailed drawings
- an aptitude for mathematics
- good communications skills

Job Opportunities

The civil engineering profession is a diverse one and offers many varied opportunities for rewarding employment. As a graduate Technician, you may work in an engineering office helping to produce construction documents, or with a contracting firm helping to control the actual construction of the building. You may work with a contracting firm in quality control, quantity surveying, project inspection or job coordination, with a consulting engineering firm testing soils and foundations, or become a sales representative for a construction equipment manufacturer. You could become a building inspector, or a draftsperson for a municipal water purification department.

Curriculum

Semester 1 (26 hours/week)	Credits
330-518 Engineering Drafting 1	3
330-409 Surveying 1	5
330-519 Materials Testing 1	3
330-520 Intro. to Mechanics	4
380-230 Mathematics 1	4
Communications 1	4
General Studies	3

Semester 2 (26 hours/week)	Credits
330-521 Structural Drafting	4

Civil Engineering Technician (Co-op Program) (cont'd.)

330-522	Surveying 2	5
330-579	Computer Applications 1	3
320-001	Statics *Pre-Req:* 380-046 Mathematics 1	4
380-205	Mathematics 2 *Pre-Req:* 330-230 Mathematics 1	3
	Communications 2	4
	General Studies	3

4 Month Co-op Work Term

Semester 3 (24 hours/week)		Credits
330-582	Civil CADD 1	3
330-523	Civil Drafting 1	4
330-081	Highway Technology	6
330-525	Materials Testing 2	3
330-526	Intro. to Fluid Mechanics	3
330-527	Basic Strength of Materials	5

Semester 4 (24 hours/week)		Credits
330-581	Civil Drafting 2	5
330-528	Intro. to Municipal Services	4
330-529	Soil Mechanics	5
330-580	Computer Applications 2	3
330-557	Specifications & Estimating	4
330-532	Methods of Construction	3
	General Studies	3

Civil Engineering Technologist (Co-op Program)

North Campus

Six academic semesters and four co-op work term semesters beginning September

Do you like constructing things? Are you curious to learn how buildings, bridges, and dams are built and highways are designed? Do you like technical drawing?

The field of Civil Engineering includes all of these and more. Many of the things that are necessary for modern public society are designed and built by civil engineers and you could be a part of that process by enrolling in the Civil Engineering Technologist (Co-op) Program.

The basic skills you will need to develop in order to participate in the civil engineering profession as a civil engineering technologist are developed in the first four semesters and two work term semesters of the Civil Engineering Technician Program. Please see that program's listing for further details.

You will, however, go on to design foundations and retaining walls and to plan roads, expressways and highways. You will learn to estimate the costs involved in construction projects, and how to design municipal servicing systems. You will learn to perform more advanced computations related to the design of structures of all kinds.

This program is a co-op program which means that you will have the opportunity to gain real-life job experience in this field during your work terms. These working experiences will give you a first-hand insight to the variety of job opportunities that you might explore, as well as provide you with invaluable working knowledge.

Co-operative Education Programs/Technology

Paid work term opportunities, that are related to your chosen field of study, are arranged for you and subsequently monitored by, the Department of Co-operative Education/Technology.

Your eligibility for graduation is subject to the completion of all program course requirements and successful completion of all scheduled co-op work terms.

Admission Requirements

- successful completion of Humber's Civil Engineering Technician program or upon recommendation of the academic division

Interests and Skills

- strong technical interest in how buildings are constructed
- serious interest in producing detailed drawings
- an aptitude for mathematics
- good communications skills

Job Opportunities

The civil engineering profession is a diverse one and offers many varied opportunities for rewarding employment. As a graduate Technologist you will be working at a more advanced level than Civil Engineering Technicians and may work in an engineering office helping to produce construction documents, or with a contracting firm helping to control the actual construction of the building as a construction supervisor or project cost estimator. You may work with a contracting firm in quality control, quantity surveying, project inspection or job coordination, with a consulting engineering firm testing soils and foundations, or become a sales representative for a construction equipment manufacturer. You could become a building inspector, or a draftsperson for a municipal water purification department.

Curriculum

For first four semesters, see page 154-155

8 Month Co-op Work Term

Semester 5 (26 hours/week)		Credits
330-417	Highway Design	4
330-536	Stress and Structural Analysis	8
330-533	Foundations	6
330-538	Site Management	4
330-535	Municipal Services	4

4 Month Co-op Work Term

Civil Engineering Technologist (Co-op Program) (cont'd.)

Semester 6 (24 hours/week)	Credits
330-537 Structural Design & Drafting/CADD	8
330-534 Fluid Mechanics	3
330-059 Transportation Planning	4
330-053 Sanitary Technology	4
330-372 Air Photo Interpretation	3
330-419 Technical Project	2

Civil Engineering Technologist Construction Administration (Co-op Program)

North Campus

Six academic semesters and four co-op work term semesters beginning September

If you are interested in the business management aspects of the construction process, this option within the Civil Engineering Technologist (Co-op) Program will be right for you. The construction industry--contractors, sub-contractors, architects, and engineers-- needs people who have a strong background in the subjects covered by the Civil Engineering Technician Program, but who also have more advanced training in the various aspects of construction administration.

You may be eligible to enter this option after completing the Civil Engineering Technician Program. Please see that program's listing for further details.

You will, however, go on to determine the exact quantities of materials needed for any building project, and will learn how to determine and control the cost of those materials. You will learn to administer the various contracts that govern construction practices, and to understand the laws and planning regulations that are in effect. You will use computers to produce drawings as well as construction-related documents.

This program is a co-op program which means that you will have the opportunity to gain real-life job experience in this field during your work terms. These working experiences will give you a first-hand insight to the variety of job opportunities that you might explore, as well as provide you with invaluable working knowledge.

Co-operative Education Programs/Technology

Paid work term opportunities, that are related to your chosen field of study, are arranged for you and subsequently monitored by, the Department of Co-operative Education/Technology.

Your eligibility for graduation is subject to the completion of all program course requirements and successful completion of all scheduled co-op work terms.

Admission Requirements

- successful completion of Humber's Civil Engineering Technician program or upon recommendation of the academic division

Interests and Skills

- strong technical interest in how buildings are constructed
- serious interest in producing detailed drawings
- an aptitude for mathematics
- good communications skills

Job Opportunities

The civil engineering profession is a diverse one and offers many varied opportunities for rewarding employment. As a graduate Technologist, you will be working at a more advanced level than Civil Engineering Technicians and may work in an engineering office helping to produce construction documents, or with a contracting firm helping to control the actual construction of the building as project coordinator or estimator. You may work with a contracting firm in quality control, quantity surveying, project inspection or job coordination, with a consulting engineering firm testing soils and foundations, or become a sales representative for a construction equipment manufacturer. You could become a building inspector, or develop technical details for a window manufacturer.

Curriculum

For first four semesters, see page 154-155

8 Month Co-op Work Term

Semester 5 (25 hours/week)	Credits
330-417 Highway Design	4
330-533 Foundations	6
330-560 Life Cycle Costing	3
330-535 Municipal Services	4
330-569 Quantity Surveying & Estimating	4
330-570 Construction Admin. (Contracting)	4

4 Month Co-op Work Term

Semester 6 (25 hours/week)	Credits
330-053 Sanitary Technology	4
330-419 Technical Project	2
330-534 Fluid Mechanics	3
330-574 Business Management	3
330-572 Quantity Surveying & Estimating (Comparative)	4
330-573 Construction Admin. (Professional)	4
330-583 Structural Drafting/CADD	5

Computer Engineering Technology

North

Six semesters beginning September intro.

The graduate of this program will have a strong software orientation supplemented by an appropriate amount of hardware (electronics) experience. Upon graduation, the student will be able to perform the following tasks:

- use structured analysis techniques to specify, develop, and test systems
- produce well-structured and well-documented program modules
- solve problems through the application of appropriate computer languages
- integrate hardware and software components into complete systems
- apply operating system tools to the solution of real-time problems
- understand and apply communications protocols used in distributed computer systems.

You may be required to purchase an appropriate electronic components kit and materials as recommended by the College.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics at the general level is strongly recommended)
- one senior program-related technical course (electronics or computer science is strongly recommended) or a second senior science at the general level

Job Opportunities

The graduate will work under the supervision of a computer systems engineer either individually or as part of a team. Employment opportunities exist in a wide range of industries that use embedded microcomputers or stand-alone computer systems. The industries will include process control, environmental control, automated warehousing, flexible manufacturing systems, telecommunications, local area networks and office automation.

Curriculum

Semester 1 (26 hours/week)	Credits
380-183 Mathematics 1	4
380-254 Physics	3
350-206 Introduction to Pascal	4
350-205 Computers in Business	3
350-083 Electronics Circuits & Applications 1	4
350-092 Logic 1	4
Communications 1	4

Semester 2 (25 hours/week)	Credits
380-029 Mathematics 2 *Pre-Req:* 380-224 Mathematics 1	4
380-253 Physics (Mechanics & Magnetism)	3
350-234 Problem Solving with Pascal *Pre-Req:* 350-206 Introduction to Pascal	4
350-242 Computer Application Packages	2
350-243 Switching and Interface Circuits *Pre-Req:* 380-224 Mathematics 1, 350-083 Electronics Circuits & Applications 1, 350-092 Logic 1	4
350-093 Logic 2 *Pre-Req:* 350-092 Logic 1	4
Communications 2	4

Semester 3 (25 hours/week)	Credits
350-244 Calculus & Computer Applications 1 *Pre-Req:* 380-029 Mathematics 2, 350-234 Problem Solving with Pascal	4
350-212 Algorithms & Data Structures 1 *Pre-Req:* 350-234 Problem Solving with Pascal	4
350-210 Programming Languages	6
350-240 PC Based Systems *Pre-Req:* 350-093 Logic 2	4
350-211 Data Communications Systems 1 *Pre-Req:* 350-093 Logic 2, 350-243 Switching and Interface Circuits	4
General Studies	3

Semester 4 (27 hours/week)	Credits
350-245 Calculus & Computer Applications 2 *Pre-Req:* 350-244 Calculus & Computer Applications 1	4
350-218 Algorithms & Data Structures 2 *Pre-Req:* 350-212 Algorithms & Data Structures 1	4
350-216 Systems Analysis	4
350-246 Software Project *Pre-Req:* 350-212 Algorithms & Data Structures 1	4
350-219 Operating Systems 1 *Pre-Req:* 350-240 PC Based Systems	4
350-223 Peripherals *Pre-Req:* 350-240 PC Based Systems	4
General Studies	3

Semester 5 (24 hours/week)	Credits
350-239 Computers in Manufacturing *Pre-Req:* 350-216 Systems Analysis, 350-246 Software Project	4
350-225 Operating Systems 2 *Pre-Req:* 350-219 Operating Systems 1	4
350-247 Real Time Systems 1	4
350-208 Computer Architecture 1 *Pre-Req:* 350-219 Operating Systems 1, 350-223 Peripherals	4
350-221 Micro Processor Development Systems *Pre-Req:* 350-219 Operating Systems 1, 350-223 Peripherals	4
350-222 Data Communications Systems 2 *Pre-Req:* 350-211 Data Communications Systems 1	4

Computer Engineering Technology (cont'd.)

Semester 6 (24 hours/week)	Credits
350-228 Graphics Systems *Pre-Req:* 350-223 Peripherals	4
350-248 IBM Systems Operation	3
350-249 VAX/VMS Systems Operation	2
350-250 Computer Systems Project	4
350-226 Real Time Systems 2 *Pre-Req:* 350-220 Real Time Systems 1	4
350-233 Computer Architecture 2 *Pre-Req:* 350-208 Computer Architecture 1	4
General Studies	3

Electrical (Control) Engineering Technician

Queensway A Campus

The Electrical Industry is in constant need of technically trained personnel. The College is meeting this need by providing an educational program designed to provide a sound base for career development upon graduation. As a graduate of Humber's Electrical (Control) Engineering Technician program you will have received training in industrial and other applications of computer, electronics, instrumentation, electrical design, the generation and transmission of power, as well as the conceptual understanding, operation and control of electrical equipment and power systems.

The physics of circuit and equipment behaviour is emphasized enabling the graduate to be flexible in analysing unfamiliar situations and problems. The program content is designed to provide the graduate with a wide range of career opportunities with a high degree of job mobility and advancement potential as a technician.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics at the general level is strongly recommended)
- one senior program-related technical course (electronics is strongly recommended)

Job Opportunities

Upon graduation, the Electrical (Control) Engineering Technician will be concerned with repair, calibration, maintenance or sales of electrical equipment. A technician will normally work under the guidance of a technologist or engineer. The Electrical (Control) Engineering Technician is required whenever electrical energy is used or generated.

Curriculum

Semester 1 (25 hours/week)	Credits
389-104 Physics 1	3
389-101 Mathematics 1	4
941-102 Communications 1 *Pre-Req:* 941-205 Introductory Communications	4
354-106 Computer Programming & Concepts	3
354-107 Electrical Circuits & Applications 1	8
General Studies	3

Semester 2 (25 hours/week)	Credits
389-204 Physics 2	3
389-201 Mathematics 2	4
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4
354-207 D.C. Equipment	7
354-206 Electrical Circuits & Applications 2	4
General Studies	3

Semester 3 (25 hours/week)	Credits
354-303 Electrical Design 1	3
389-302 Mathematics 3	3
354-108 A.C. Equipment 1	4
354-305 Industrial Electronics 1	8
354-302 Electrical Circuits & Applications 3	4
General Studies	3

Semester 4 (25 hours/week)	Credits
354-402 Electrical Design 2	3
354-403 Industrial Instrumentation	3
354-203 A.C. Equipment 2	4
354-405 Digital Circuits	4
254-204 Industrial Electronics 2	4
354-406 Control Systems	4
354-407 Power Systems	3

Electromechanical Engineering Technician

North Campus

Four semesters beginning September and January each year. Intro.

As an Electromechanical Engineering Technician you would be involved with machines having complex, hydraulic, pneumatic, electrical and electronic controls. The skills you learn will enable you to install and test this type of

Electromechanical Engineering Technician (cont'd.)

equipment, advise on its maintenance, provide solutions to technical problems related to control systems in general. You will also learn about modern manufacturing environment and management.

Students may be required to place refundable deposits on such items as lab manuals, drafting scales, or other items supplied by the College.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics at the general level is strongly recommended)

Job Opportunities

Electromechanical Technicians find employment in different branches of industry that use modern, automated as well as more traditional manufacturing methods. Your training and knowledge will enable you to work in component testing programs, system installation, technical services, technical sales, and in plant maintenance programs.

Curriculum

Semester 1 (25 hours/week)	Credits
380-046 Mathematics 1	4
320-098 Manufacturing Processes 1	4
320-046 Mechanical Technical Drawing	4
320-267 Metrology	3
320-266 Machining Processes	3
320-333 Manufacturing Management	3
941-102 Communications 1 *Pre-Req:* 941-205 Introductory Communications	4

Semester 2 (26 hours/week)	Credits
380-002 Mathematics 2 *Pre-Req:* 380-046 Mathematics 1	4
320-001 Statics *Pre-Req:* 380-046 Mathematics 1	4
320-337 Materials Science	4
320-073 Fluid Mechanics	4
380-232 Computer Programming *Pre-Req:* 380-046 Mathematics 1	3
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4
General Studies	3

Semester 3 (27 hours/week)	Credits
320-338 Dynamics *Pre-Req:* 380-046 Mathematics 1	4
320-076 Manufacturing Processes 2 *Pre-Req:* 320-098 Manufacturing Processes 1	4
320-052 Basic Strength of Materials *Pre-Req:* 320-001 Statics	4
320-063 Industrial Hydraulics *Pre-Req:* 320-073 Fluid Mechanics	4
320-147 Mechanical Power Transmission	4
350-190 Electrical Controls 1	3
350-092 Logic 1	4

Semester 4 (24 hours/week)	Credits
320-015 Numerical Control 1 *Pre-Req:* 320-266 Machining Processes	4
320-145 Industrial Pneumatics *Pre-Req:* 350-190 Electrical Controls 1	4
320-287 CAD 1 *Pre-Req:* 320-046 Mechanical Technical Drawing	3
320-298 Electromechanical Controls 1 *Pre-Req:* 320-145 Industrial Pneumatics	4
320-270 Microprocessor Control 1 *Pre-Req:* 350-092 Logic 1	3
General Studies (2)	6

Electromechanical Engineering Technologist

North Campus

Six semester beginning September and January each year.

Upon successful completion of the four semesters of the Electromechanical Engineering Technician training you may be eligible to continue for two additional semesters to complete the Electromechanical Engineering Technologist program. During the fifth and sixth semesters you will have rounded out your knowledge by studying complex systems involving automation, microcomputers, robotics, CAD/CAM and their applications to industry.

Students may be required to place refundable deposits on such items as lab manuals or other items supplied by the College.

Job Opportunities

As an Electromechanical Engineering Technologist, you will be involved in the design of automation systems and their control functions, in sales, in maintenance or in consulting. The actual opportunities are as varied as the number of industries who would use your skills.

You may enjoy challenges in the sales of major fluid power systems, assisting in the design and operation of computer controlled manufacturing systems: or supervision in various departments of manufacturing or service companies, using high technology robotics and CAD/CAM (Computer Aided Design/Computer Aided Manufacturing) Systems.

Curriculum

For first four semesters see page 159

Semester 5 (25 hours/week)	Credits
320-343 Fluid Power Circuits (Pneumatic)	3
320-344 Fluid Power Circuits (Hydraulic)	3
320-293 Numerical Control 2 *Pre-Req:* 320-015 Numerical Control 1	5
350-191 Electrical Controls 2 *Pre-Req:* 350-190 Electrical Controls 1	3
340-146 Instrumentation for Chemical Processes	4
320-351 Computer Applications in Manufacturing	3
320-148 Machine Design 1 (Project)	4

Semester 6 (23 hours/week)	Credits
320-308 Robotics & Automation Systems	4
320-312 Machine Design 2 (CAD 2)	
320-290 CAD 2 *Pre-Req:* 320-287 CAD 1	3
320-299 Electromechanical Controls 2 *Pre-Req:* 320-298 Electromechanical Controls 1	3
320-342 FMS Project	6
320-272 Thermodynamics	3

Electronics Engineering Technician

North Campus

Four semesters starting September and January

This program is designed to provide you with a comprehensive background in modern electronic principles and with practical experience in modern, well-equipped laboratories. The practical experience gained in this program prepares you for employment in the industrial electronics, computer, and telecommunications industries. You may have to purchase electronics components kits and recommended equipment at the College.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics at the general level is strongly recommended)
- one senior program-related technical course (electronics is strongly recommended) or a second senior science at the general level

Job Opportunities

As an Electronics Engineering Technician you may find employment in a variety of industrial, engineering, and scientific organizations. You may become involved in equipment and component manufacturing, research and testing, equipment maintenance and repair, and electronic sales.

As a graduate of this four-semester program, with sufficiently high standing, you may further develop your expertise by entering the fifth semester of the Electronics Engineering Technology Program.

Curriculum

Semester 1 (25 hours/week)	Credits
380-224 Mathematics 1	4
380-254 Physics	3
350-083 Electronics Circuits & Applications 1	4
350-092 Logic 1	4
380-225 BASIC Programming	3
Communications 1	4
General Studies	3

Semester 2 (27 hours/week)	Credits
380-029 Mathematics 2 *Pre-Req:* 380-224 Mathematics 1	4
380-253 Physics (Mechanics & Magnetism)	3
350-102 Electronics Circuits & Applications 2 *Pre-Req:* 380-224 Mathematics 1, 350-083 Electronics Circuits & Applications 1	4
350-093 Logic 2 *Pre-Req:* 350-092 Logic 1	4
350-237 C.A.D. for Electronics	4
350-107 Circuits & Measurement *Pre-Req:* 380-224 Mathematics 1, 350-083 Electronics Circuits & Applications 1	4
Communications 2	4

Semester 3 (24 hours/week)	Credits
350-175 Principles of TV *Pre-Req:* 350-102 Electronics Circuits & Applications 2	4
350-103 Electronics Circuits & Applications 3 *Pre-Req:* 350-102 Electronics Circuits & Applications 2, 380-029 Mathematics 2	4
350-184 Motors & Controls *Pre-Req:* 350-107 Circuits & Measurement	3
350-051 H.F. Circuits *Pre-Req:* 350-102 Electronics Circuits & Applications 2, 380-029 Mathematics 2, 350-107 Circuits & Measurement	4
350-179 Microcomputer Systems 1 *Pre-Req:* 350-093 Logic 2	4
350-238 Elect. Production Technology	3
General Studies	3

Electronics Engineering Technician (cont'd.)

Semester 4 (27 hours/week)	Credits
380-228 Introductory Calculus *Pre-Req:* 380-029 Mathematics 2	4
350-104 Electronics Circuits & Applications 4 *Pre-Req:* 350-103 Electronics Circuits & Applications 3	4
350-183 Telecommunication Systems *Pre-Req:* 350-051 H.F. Circuits	4
350-180 Microcomputer Systems 2 *Pre-Req:* 350-179 Microcomputer Systems 1	4
350-185 Electro-Mechanical Techniques *Pre-Req:* 380-253 Physics (Mechanics & Magnetism), 350-102 Electronics Circuits & Applications 2, 350-107 Circuits & Measurement	3
350-016 Troubleshooting *Pre-Req:* 350-103 Electronics Circuits & Applications 3, 350-179 Microcomputer Systems 1	4
General Studies	3

Electronics Engineering Technologist

North Campus

Six semesters starting September and January

The first four semesters are the same as for the Electronics Engineering Technician program. The 5th and 6th semesters provide more advanced studies in the field of electronics. Emphasis is placed on advanced circuitry, measurement, testing and troubleshooting of complex equipment, design and construction of prototypes, and the preparation of technical manuals and specifications for a wide variety of modern electronic systems.

You may be required to purchase electronics component kits and recommended test equipment at the College.

All students are initially enrolled as Electronics Engineering Technician students. Upon successful completion of the Technician program, qualified students may continue into the Technology level.

Admission Requirements

- successful completion of Humber's Electromechanical Engineering Technician program

Job Opportunities

As a graduate of the Electronic Technology program you may work in industries as varied as telecommunications, control equipment, computer systems, and industrial electronics systems.

As a technologist you can use your greater theoretical training in high technology areas such as fibre optics, microprocessor application and development, and electronic design techniques. You may also use your skills troubleshooting prototype equipment prior to manufacture.

Curriculum

For first four semesters, see pages 160-161

Semester 5 (24 hours/week)	Credits
380-229 Applied Calculus *Pre-Req:* 380-228 Introductory Calculus	4
350-105 Electronics Circuits & Applications 5 *Pre-Req:* 350-103 Electronics Circuits & Applications 3	4
350-150 Opto-Electronics *Pre-Req:* 380-203 Physics (Heat, Light & Sound), 380-228 Introductory Calculus	4
350-151 Video Systems *Pre-Req:* 350-175 Principles of TV, 350-183 Telecommunication Systems	4
350-181 Microcomputer Systems 3 *Pre-Req:* 350-180 Microcomputer Systems 2	4
350-232 Techniques of Design *Pre-Req:* 350-104 Electronics Circuits & Applications 4, 350-093 Logic 2	4

Semester 6 (25 hours/week)	Credits
380-195 Applied Statistics *Pre-Req:* 380-029 Mathematics 2	3
350-106 Electronics Circuits & Applications 6 *Pre-Req:* 350-051 H.F. Circuits	4
350-149 Control Systems *Pre-Req:* 350-181 Microcomputer Systems 3, 380-229 Applied Calculus, 350-184 Motors & Controls	4
350-231 Data Communications *Pre-Req:* 350-183 Telecommunication Systems	4
350-148 Applied Electromagnetics *Pre-Req:* 350-183 Telecommunication Systems, 380-253 Physics (Mechanics & Magnetism)	4
350-153 Technical Project *Pre-Req:* 350-232 Techniques of Design	2
350-186 Microwave Techniques *Pre-Req:* 380-229 Applied Calculus, 350-183 Telecommunication Systems	4

Environmental Systems Engineering Technician

North Campus

Four semesters beginning September

As an air conditioning and refrigeration technician you will have a broad and intensive knowledge of the design, installation and operation of heating and air conditioning systems in residential, commercial and industrial buildings. As a technician you will also be able to size and select environmental and pollution control equipment.

Environmental Systems Engineering Technician (cont'd.)

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics at the general level is strongly recommended)

Job Opportunities

As a graduate, you may work for a design contractor, in installation, service, and retro-fitting of existing buildings, including energy audits. Opportunities exist as sales representatives, or specifications writers. With experience you can become an estimator and would work with plans and specifications to determine material and labour requirements in preparation of contract bids. Design contractors are responsible for design selection, layout, and specification of mechanical equipment to meet end-user requirements.

Successful graduates of this program can transfer into the Solar Energy or Energy Management for a third year of study.

Curriculum

Semester 1 (27 hours/week)	Credits
380-230 Mathematics 1	4
380-249 Engineering Physics 1	3
330-431 Electricity 1	3
320-020 Refrigeration 1	4
330-430 Residential Systems	3
320-252 Design Loads 1	3
320-284 Engineering Drawing	3
Communications 1	4

Semester 2 (26 hours/week)	Credits
380-205 Mathematics 2 *Pre-Req:* 330-230 Mathematics 1	3
380-251 Engineering Physics 2	3
320-021 Refrigeration 2 *Pre-Req:* 320-020 Refrigeration 1	4
320-253 Design Loads 2 *Pre-Req:* 320-252 Design Loads 1	3
320-251 Psychrometrics	3
320-316 Circuits & Schematics Drafting *Pre-Req:* 330-431 Electricity 1	3
Communications 2	4
General Studies	3

Semester 3 (25 hours/week)	Credits
380-208 Mathematics 3 (Mgmt. Appl) *Pre-Req:* 380-205 Mathematics 2	3
330-432 Electricity 2 *Pre-Req:* 320-316 Circuits & Schematics Drafting	3
380-239 Computer Applications	3
320-333 Manufacturing Management	3
320-254 Design Loads 3 *Pre-Req:* 320-253 Design Loads 2	3
330-433 Hydronics & Steam Syst. 1	3
320-029 Comm. Syst. 1 *Pre-Req:* 320-021 Refrigeration 2	4
General Studies	3

Semester 4 (23 hours/week)	Credits
380-206 Calculus 1 *Pre-Req:* 380-205 Mathematics 2	3
320-317 Thermodynamics *Pre-Req:* 380-203 Physics (Heat, Light & Sound)	2
320-318 Refrigeration 3 *Pre-Req:* 320-021 Refrigeration 2	4
330-502 Comm. Syst. 2 *Pre-Req:* 320-029 Comm. Syst. 1	3
320-319 Combustion Technology	4
330-436 Solid State HVAC Controls *Pre-Req:* 330-432 Electricity 2	3
General Studies	3

Note: Also look at 522 Solar Energy Option and 520 Energy Management Engineering Technologist to which successful students can transfer in third year.

Environmental Systems Engineering Technologist-Energy Management

North Campus

Six semesters beginning September

This program will provide its graduates with a broad and intensive knowledge of the design, operation and installation of energy systems for residential, commercial and industrial complexes.

A graduate will be capable of applying engineering principles and conventions to achieve optimum energy conservation through a process of evaluation, monitoring, control, assessment and corrective action.

Admission Requirements

- successful completion of Humber's Environmental Systems Engineering Technician program with an average of 70%

Job Opportunities

A graduate of this program can expect a wide variety of employment opportunities in the residential, commercial and industrial sectors as well as in government departments at the federal, provincial and municipal levels. Graduates will be in demand by heating, ventilating and air conditioning equipment manufacturers, consulting engineers, architects, manufacturing industries, process industries, wholesalers, mechanical contractors and building owners

Environmental Systems Engineering Technologist-Energy Management (cont'd.)

(e.g. governments, school boards, hospitals, banks, chain stores and property management companies).

Curriculum

For first four semesters, see page 162

Semester 5 (24 hours/week)	Credits
320-329 Introduction to VAV *Pre-Req:* 320-253 Design Loads 2	3
330-439 Instrumentation 1 *Pre-Req:* 330-432 Electricity 2	3
330-449 Energy Management Technology 1	6
320-440 Engineering & Economic Analysis 2	3
330-441 Hydronic & Steam Systems 2 *Pre-Req:* 330-433 Hydronics & Steam Syst. 1	3
330-438 Heat Transfer *Pre-Req:* 320-272 Thermodynamics	3
320-323 Engineered Piping Design *Pre-Req:* 320-284 Engineering Drawing	3

Semester 6 (25 hours/week)	Credits
330-509 Energy Management Technology 2 *Pre-Req:* 330-449 Energy Management Technology 1	5
330-443 Instrumentation 2 *Pre-Req:* 330-439 Instrumentation 1	3
330-452 Process Systems	3
320-326 Mechanical Estimating *Pre-Req:* 320-323 Engineered Piping Design	6
320-327 Lighting Systems	3
330-506 Energy Conservation	3
330-510 Energy Management Project & Report *Pre-Req:* 330-449 Energy Management Technology 1	2

Environmental Systems Engineering Technologist-Solar Energy

North Campus

Six semesters beginning September

This program will give you an excellent background for entry into the growing renewable energy industry. Your knowledge of the principles of energy conservation and the application of solar energy to industrial and domestic heating requirements will be in demand. You will receive training in refrigeration, air conditioning and instrumentation relating to building environmental systems. Direct hands-on training in the solar laboratory, coupled with project work will give you the experience needed to enter this important new industry.

Admission Requirements

- successful completion of Humber's Environmental Systems Engineering Technician program

Job Opportunities

You can expect a wide variety of employment opportunities. Your skills will be needed by refrigeration and heating companies, architects, consulting engineers, and solar equipment manufacturers. Government offices at all levels from federal to municipal will be seeking employees with your training.

Curriculum

For first four semesters, see page 162

Semester 5 (25 hours/week)	Credits
320-322 Computer Simulation *Pre-Req:* 380-239 Computer Applications	3
330-439 Instrumentation 1 *Pre-Req:* 330-432 Electricity 2	3
320-440 Engineering & Econoimic Analysis 2	3
330-441 Hydronic & Steam Systems 2 *Pre-Req:* 330-433 Hydronics & Steam Syst. 1	3
320-323 Engineered Piping Design *Pre-Req:* 320-284 Engineering Drawing	3
330-437 Solar Energy 1	6
330-438 Heat Transfer *Pre-Req:* 320-272 Thermodynamics	3
320-324 Technical Project 1	1

Semester 6 (25 hours/week)	Credits
320-325 Solar Energy 2 *Pre-Req:* 330-437 Solar Energy 1	2
330-443 Instrumentation 2 *Pre-Req:* 330-439 Instrumentation 1	3
320-326 Mechanical Estimating *Pre-Req:* 320-323 Engineered Piping Design	6
320-327 Lighting Systems	3
330-506 Energy Conservation	3
320-328 Solar Project & Report	5
330-452 Process Systems	3

Hydrographic Survey Technologist

North Campus

Six semesters beginning September*

Canada, a maritime nation, is bounded on three sides by one of the longest coastlines in the world. On the fourth side are the Great Lakes. These coastlines are becoming increasingly important to Canada for navigational purposes, as a fisheries resource, for offshore exploration, and as a relatively unpolluted ecological paradise.

Mapping and surveying these waters are the prime responsibility of the Canadian Hydrographic Service. They must chart and map water depths, currents, underwater obstructions and obtain data on the marine life in these waters. This program has been developed in liaison with the Canadian Hydrographic Service as the first and only hydrographic training program in Canada. During the college portion of the program, you will learn basic skills which can be applied to land, coastline and water surveys. You will also specialize in marine and hydrographic techniques such as: calibrating, position fixing by electronic methods and various forms of radar, depth measurement using acoustic and sonar principles, as well as other forms of hydrographic data on water temperatures, currents, sea bed geology and marine life. You will become familiar with the basic principles of seamanship and navigation and learn the basics of marine and maritime law. During the summer, shipboard employment may be available through the Canadian Hydrographic Service as a practical extension of your college training program.

Admission Requirements

- successful completion of Humber's Survey Technician program or upon recommendation of the academic division

Job Opportunities

After graduation you may find employment in widely varied applications of hydrography and hydrography-related activities such as seismic surveys, offshore exploration and land survey for offshore operations. There is an increasing demand from survey engineering and consulting companies, offshore exploration companies and government departments such as public works, and ocean and acquatic sciences for hydrographic surveyors. Career alternatives in this field include party chief, surveyor (instrument person), field data processor draftsperson and in programming. In most of these jobs you may have to travel to remote locations.

Curriculum

For first four semesters, see page 173

Semester 5 (26 hours/week)	Credits
330-168 Hydrographic Survey 2	4
330-159 Navigation, Charts and Pilotage	4
330-231 Statistics & Matrix Algebra *Pre-Req:* 330-230 Mathematics 1	4
330-098 Geodesy *Pre-Req:* 330-488 Control & Elect. Survey	6
330-494 Automated Survey Applications	4
330-458 Survey Camp 2	4

Semester 6 (22 hours/week)	Credits
330-499 Marine Law	3
330-429 Electronic Positioning Syst. *Pre-Req:* 330-168 Hydrographic Survey 2	4
330-065 Adjustment of Observations *Pre-Req:* Statistics and Matrix Algebra Calculus 2	4
330-497 Cartography	4
330-500 Oceanography and Meteorology	3
330-501 Tidal & Current Studies	2
330-586 Computer Applications 3 *Pre-Req:* 330-584 Computer Applications 2	2

Industrial (Management) Engineering Technologist

North Campus

Six semesters beginning September

The Industrial (Management) Engineering Technologist program is designed to satisfy the complex needs of modern industry. As a graduate from this six-semester program you will be familiar with industrial engineering and business management techniques that can be applied to virtually all industry or business enterprises.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics at the general level is strongly recommended)

Job Opportunities

The diversity of industrial engineering technology creates a variety of employment opportunities in areas such as time and motion study, quality control, facilities planning, production control, and systems analysis and design. As an industrial engineering technologist your responsibilities may include the development of work standards and manpower planning to maximize the effective use of personnel, materials, machines and money using time study and analysis techniques. With experience and a desire to become part of the management team, a graduate can move into a middle management position such as a production superintendent, or a staff specialist position such as manager of manufacturing methods.

Curriculum

Semester 1 (25 hours/week)	Credits
380-046 Mathematics 1	4
320-098 Manufacturing Processes 1	4
320-046 Mechanical Technical Drawing	4
380-182 Statistics	3
320-266 Machining Processes	3
320-333 Manufacturing Management	3
Communications 1	4

Semester 2 (27 hours/week)	Credits
380-002 Mathematics 2 *Pre-Req:* 380-046 Mathematics 1	4
320-001 Statics *Pre-Req:* 380-046 Mathematics 1	4
320-337 Materials Science	4
320-295 Time Study 1 *Pre-Req:* 380-182 Statistics	4
320-237 Basic Tool & Fixture Design *Pre-Req:* 320-046 Mechanical Technical Drawing, 320-098 Manufacturing Processes 1	4
380-232 Computer Programming *Pre-Req:* 380-046 Mathematics 1	3
Communications 2 *Pre-Req:* 941-102 Communications 1	4

Semester 3 (25 hours/week)	Credits
320-267 Metrology	3
320-076 Manufacturing Processes 2 *Pre-Req:* 320-098 Manufacturing Processes 1	4
320-052 Basic Strength of Materials *Pre-Req:* 320-001 Statics	4
320-302 Time Study 2 *Pre-Req:* 320-295 Time Study 1	4
350-190 Electrical Controls 1	3
320-072 Systems and Procedures	
General Studies	3

Semester 4 (25 hours/week)	Credits
253-111 Labour Relations *Pre-Req:* 251-020 Personnel	4
320-268 Manufacturing Cost Estimating *Pre-Req:* 320-076 Manufacturing Processes 2, 320-046 Mechanical Technical Drawing	3
320-334 Motion Study	4
320-296 Quality Control *Pre-Req:* 380-182 Statistics	3
320-345 Production & Inventory Control 1	4
221-010 Elements of Accounting	4
General Studies	3

Semester 5 (25 hours/week)	Credits
320-258 Engineering Economic Analysis *Pre-Req:* 320-433	3
320-303 Methods Analysis *Pre-Req:* 320-273 Motion Study	4
320-090 Operations Research *Pre-Req:* 380-182 Statistics	4
320-346 Production & Inventory Control 2	4
320-353 Ergonomics	4
380-193 Computer Applications *Pre-Req:* 380-232 Computer Programming	3
General Studies	3

Semester 6 (23 hours/week)	Credits
320-013 Industrial Psychology	4
320-342 FMS Project	6
320-091 Project Management	4
320-347 Plant Layout & Material Handling	6
320-304 Computer Integrated Manufacturing *Pre-Req:* 320-092 Production & Inventory Control, 320-098 Manufacturing Processes 1, 320-287 CAD 1	3

Industrial Instrumentation Engineering Technician

Queensway A Campus

64 weeks starting every week

Students proceed at their own pace and work with teachers on a one-to-one basis through individualized learning packages, as well as in lock-step classes.

The Industrial Instrumentation Technician program will provide you with knowledge of up-to-date technology and the skills necessary to function in today's technical and automated industries. Some of the subjects in this program are: mechanics, electronics, physics and chemistry. Graduates from this program will exhibit the ability to calibrate, troubleshoot, repair and maintain instruments and distributed control systems (such as the Honeywell TDC 2000) used for process measurement and control.

This program is a self-paced learning program and is also sponsored by Canada Employment and Immigration Commission (CEIC). For information on sponsorship please contact your local office.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics at the general level is strongly recommended)
- one senior program-related technical course (electronics is strongly recommended)

Industrial Instrumentation Engineering Technician (cont'd.)

Job Opportunities

With industry becoming more automated every year, there is a demand for instrumentation technicians.

Graduates may find employment in fields such as manufacturing, pulp and paper, nuclear and hydro generating plants, mining, petro chemical, and natural gas, instrument manufacturing companies, plant construction, consulting firms, and service industries. Duties will involve calibration, repair and maintenance of various systems. Training will enable graduates choose other occupations relating to instrumentation such as, instrumentation technical salesperson, process operator, and control maintenance technician.

Curriculum

Semester 1 (24 hours/week)		Credits
389-104	Physics 1	3
389-101	Mathematics 1	4
	Communications 1	4
328-002	Instrumentation Workshop Practices	2
354-107	Electrical Circuits & Applications 1	8
	General Studies	3

Semester 2 (27 hours/week)		Credits
389-204	Physics 2	3
389-201	Mathematics 2	4
	Communications 2	4
328-004	Pneumatic Instruments	4
328-103	Measuring Instruments 1	5
354-208	Electrical Circuits & Applications 2	4
	General Studies	3

Semester 3 (25 hours/week)		Credits
389-302	Mathematics 3	3
328-202	Measuring Instruments 2	
328-018	Final Control Elements	3
328-108	Electronics 1	5
389-100	Chemistry 1	2
328-106	Automatic Controls 1	5
	General Studies	3

Semester 4 (24 hours/week)		Credits
328-402	Programmable Logic Controllers	3
389-203	Chemistry 2	2
328-006	Electronic Applications	3
328-207	Automatic Controls 2	4
328-017	Analysis Instruments	3
328-208	Electronics 2	4
328-019	Computer Control	3
328-109	Instrument Design Drafting	2

Manufacturing Engineering Technician

North Campus

Four semesters beginning September and January each year.

Manufacturing Technicians decide how a product is to be manufactured, what types of machines are to be used, the kinds of materials required, and the sequence of production and methods. As a graduate of this four-semester program you will be able to develop the manufacturing procedures for parts produced by machining processes, presswork methods and plastics technology, and then subsequently assembled into a product. Skills are developed through practical experience in a modern production laboratory equipped with computer controlled equipment such as 5 axis CNC machining centres and CAD/CAM technology.

This program will also introduce you to modern manufacturing environment and management.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics at the general level is strongly recommended)

Job Opportunities

Manufacturing Technicians are involved in the scheduling, coordination and cost analysis of ongoing manufacturing, and the emergency and preventative maintenance systems of manufacturing operation.

Troubleshooting and project responsibilities in process planning, tool design and quality control are also included as part of the Manufacturing Technician's job. A graduate of this four-semester program may be eligible to enter the fifth semester of Manufacturing Engineering Technology. Successful completion of the fifth and sixth semesters allows students to graduate as a Manufacturing Engineering Technologist.

Curriculum

Semester 1 (25 hours/week)		Credits
380-046	Mathematics 1	4
320-098	Manufacturing Processes 1	4
320-046	Mechanical Technical Drawing	4
380-182	Statistics	3
320-266	Machining Processes	3
320-333	Manufacturing Management	3

Manufacturing Engineering Technician (cont'd.)

941-102 Communications 1 *Pre-Req:* 941-205 Introductory Communications	4

Semester 2 (27 hours/week)	Credits
380-002 Mathematics 2 *Pre-Req:* 380-046 Mathematics 1	4
320-001 Statics *Pre-Req:* 380-046 Mathematics 1	4
320-265 Materials Science	3
320-295 Time Study 1 *Pre-Req:* 380-182 Statistics	4
320-237 Basic Tool & Fixture Design *Pre-Req:* 320-046 Mechanical Technical Drawing, 320-098 Manufacturing Processes 1	4
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4
General Studies	3

Semester 3 (25 hours/week)	Credits
320-338 Dynamics *Pre-Req:* 380-046 Mathematics 1	4
320-076 Manufacturing Processes 2 *Pre-Req:* 320-098 Manufacturing Processes 1	4
320-291 Die Design 1 *Pre-Req:* 320-237 Basic Tool & Fixture Design, 320-098 Manufacturing Processes 1	5
320-287 CAD 1 *Pre-Req:* 320-046 Mechanical Technical Drawing	3
350-190 Electrical Controls 1	3
350-232 Techniques of Design *Pre-Req:* 350-104 Electronics Circuits & Applications 4, 350-093 Logic 2	4
320-267 Metrology	3

Semester 4 (25 hours/week)	Credits
320-015 Numerical Control 1 *Pre-Req:* 320-266 Machining Processes	4
320-268 Manufacturing Cost Estimating *Pre-Req:* 320-076 Manufacturing Processes 2, 320-046 Mechanical Technical Drawing	3
320-305 Manufacturing Process Planning 1 *Pre-Req:* 320-076 Manufacturing Processes 2	5
320-334 Motion Study	4
320-336 Fluid Power Techniques	3
General Studies (2)	6

Manufacturing Engineering Technologist

North Campus

Six semesters beginning September and January each year.

Upon successful completion of the four semesters of Manufacturing Engineering Technician's training, you may be eligible to continue for two additional semesters to complete the Manufacturing Engineering Technology program. These additional semesters enable you to study complex problems in specialized manufacturing processes and costing.

Admission Requirements

- successful completion of Humber's Manufacturing Engineering Technician program with a minimum average of 70%

Job Opportunities

As a key person on an engineering team, you may become involved in the development, implementation and debugging of production processes. You may also become part of a support group which deals with inventory control, plant layout, estimating and quality control. Employment alternatives include Process Technologist, Manufacturing Supervisor and Cost Estimator. Process Technologists initiate and coordinate the design and purchase of equipment and tooling that would efficiently produce the present product line and new lines of the future. Manufacturing supervisors are part of a team involved in troubleshooting, design, and the development of people skills that meet the demand of current technology. Cost Estimators accurately "guesstimate" the manufacturing and production costs of a new part or product that is being considered for the consumer market. These skills will be taught using a number of sophisticated CAD/CAM systems.

Curriculum

For first four semesters, see page 166-167

Semester 5 (24 hours/week)	Credits
320-293 Numerical Control 2 *Pre-Req:* 320-015 Numerical Control 1	5
320-052 Basic Strength of Materials *Pre-Req:* 320-001 Statics	4
320-298 Electromechanical Controls 1 *Pre-Req:* 320-145 Industrial Pneumatics	4
320-092 Production & Inventory Control *Pre-Req:* 320-098 Manufacturing Processes 1	4
320-244 Manufacturing Process Planning 2 *Pre-Req:* 320-305 Manufacturing Process Planning 1	4
320-351 Computer Applications in Manufacturing	3

Semester 6 (24 hours/week)	Credits
320-308 Robotics & Automation Systems	4

Manufacturing Engineering Technologist (cont'd.)	
320-091 Project Management	4
320-296 Quality Control *Pre-Req:* 380-182 Statistics	3
320-342 FMS Project	6
320-304 Computer Integrated Manufacturing *Pre-Req:* 320-092 Production & Inventory Control, 320-098 Manufacturing Processes 1, 320-287 CAD 1	3

Mechanical Engineering Drafting Design Technician

North Campus

Four semesters beginning September and January each year. Intro.

As a graduate of the Mechanical (Drafting Design) Engineering Technician program, you will be prepared to apply design principles and practices to a variety of engineering and design problems.

This four semester program encompasses the theory and skills to make engineering drawings using the latest in computer aided drafting (CAD) equipment in addition to traditional drafting methods. You will gain a thorough knowledge of materials, and mechanical solutions for the design and manufacture of mechanical parts and assemblies.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics at the general level is strongly recommended)

Job Opportunities

Graduates may expect to find employment in drafting and design, computer aided design drafting, estimating, and in technical sales.

Curriculum

Semester 1 (26 hours/week)	Credits
380-046 Mathematics 1	4
941-102 Communications 1 *Pre-Req:* 941-205 Introductory Communications	4
320-098 Manufacturing Processes 1	4
320-046 Mechanical Technical Drawing	4
320-266 Machining Processes	3
320-337 Materials Science	4
General Studies	3

Semester 2 (26 hours/week)	Credits
380-002 Mathematics 2 *Pre-Req:* 380-046 Mathematics 1	4
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4
320-001 Statics *Pre-Req:* 380-046 Mathematics 1	4
320-162 Mechanical Design & Drafting 1 *Pre-Req:* 320-046 Mechanical Technical Drawing	8
380-232 Computer Programming *Pre-Req:* 380-046 Mathematics 1	3
General Studies	3

Semester 3 (25 hours/week)	Credits
320-052 Basic Strength of Materials *Pre-Req:* 320-001 Statics	4
320-287 CAD 1 *Pre-Req:* 320-046 Mechanical Technical Drawing	3
320-147 Mechanical Power Transmission	4
320-286 Mechanical Design & Drafting 2 *Pre-Req:* 320-046 Mechanical Technical Drawing	7
350-190 Electrical Controls 1	3
320-338 Dynamics *Pre-Req:* 380-046 Mathematics 1	4

Semester 4 (23 hours/week)	Credits
320-015 Numerical Control 1 *Pre-Req:* 320-266 Machining Processes	4
320-335 Mechanical Design & Drafting 3 *Pre-Req:* 320-046 Mechanical Technical Drawing	7
320-285 Kinematics of Machines *Pre-Req:* 320-001 Statics	3
320-290 CAD 2 *Pre-Req:* 320-287 CAD 1	3
320-336 Fluid Power Techniques	3
General Studies	3

Mechanical Engineering Numerical Control Technician

North Campus

Four semesters beginning September and January each year.

Numerical Control is the most modern way of controlling production machinery. In this program you will learn to write and process programs from part drawings to punched tape, or DNC (direct numerical control) to guide the CNC equipment. You will learn to select the proper tooling and fixturing required for machining various different parts. You will learn to prepare manual and computer as-

Mechanical Engineering Numerical Control Technician (cont'd.)

sisted programs on the latest CAD/CAM systems for the most advanced numerical control machinery, including five axis machining centres, but you will also learn hands-on how to operate these machines for program debugging and parts machining. This program will also introduce you to modern manufacturing environment and management.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics at the general level is strongly recommended)

Job Opportunities

Technologically-modern companies are looking for qualified CNC operators and programmers. These industries include aircraft and aerospace, automotive, agricultural machinery, plastics, rubber manufacturing, instrumentation, and service industries. Machine-tool sales and servicing, and CNC programming services are additional areas.

Numerical control programmers translate dimensions from drawings to numerical control machines; prepare tooling and fixturing information for the shops. As a supervisor you would set up the machine, check the tape for correctness and accuracy,

Make recommendations to improve productivity. As a sales representative you would assist the sales department with technical know-how, train operators and programmers for customers, and prepare sample programs for demonstration.

Curriculum

Semester 1 (25 hours/week)	Credits
380-046 Mathematics 1	4
320-098 Manufacturing Processes 1	4
320-046 Mechanical Technical Drawing	4
320-267 Metrology	3
320-266 Machining Processes	3
320-333 Manufacturing Management	3
Communications 1	4

Semester 2 (27 hours/week)	Credits
380-002 Mathematics 2 *Pre-Req:* 380-046 Mathematics 1	4
320-001 Statics *Pre-Req:* 380-046 Mathematics 1	4
320-337 Materials Science	4
320-015 Numerical Control 1 *Pre-Req:* 320-266 Machining Processes	4
320-237 Basic Tool & Fixture Design *Pre-Req:* 320-046 Mechanical Technical Drawing, 320-098 Manufacturing Processes 1	4
380-232 Computer Programming *Pre-Req:* 380-046 Mathematics 1	3
Communications 2	4

Semester 3 (25 hours/week)	Credits
320-338 Dynamics *Pre-Req:* 380-046 Mathematics 1	4
320-076 Manufacturing Processes 2 *Pre-Req:* 320-098 Manufacturing Processes 1	4
320-293 Numerical Control 2 *Pre-Req:* 320-015 Numerical Control 1	5
320-287 CAD 1 *Pre-Req:* 320-046 Mechanical Technical Drawing	3
350-190 Electrical Controls 1	3
General Studies (2)	6

Semester 4 (24 hours/week)	Credits
320-339 Numerical Control 3	5
320-268 Manufacturing Cost Estimating *Pre-Req:* 320-076 Manufacturing Processes 2, 320-046 Mechanical Technical Drawing	3
320-305 Manufacturing Process Planning 1 *Pre-Req:* 320-076 Manufacturing Processes 2	5
320-340 CAM 1 *Pre-Req:* 320-287 CAD 1	4
320-341 FMS Project	4
General Studies	3

Mechanical Engineering Tool & Die Technician

North Campus

Four semesters beginning September

Mechanical Tool and Die Technicians study the relationships between production methods and tooling. They draw and design tools, fixtures and dies using conventional drafting techniques and Computer Aided Design (CAD)equipment. Other areas of study include estimating manufacturing costs, N.C. programming manufacturing management and process planning.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics, general level is strongly recommended)

Job Opportunities

As a tool and die technician there are numerous areas of employment in manufacturing

Mechanical Engineering Tool & Die Technician (cont'd.)

industries including automotive and aeronautical and consulting engineering firms, and the tool design offices of specialized tooling companies. Entry jobs are at a junior level but after a few years of experience graduates become fixture designers, die designers, mould designers and cost estimators or process analysts. Die designers are responsible for the layout and detailing of dies. Cost estimators prepare and detail the manufacturing cost requirements for new or modified parts. Process analysts are involved in developing the tooling and operational sequence for continuous line manufacturing. This type of manufacturing includes the production of automotive products, electric motors, consumers products and military systems, aircraft and aerospace products.

Curriculum

Semester 1 (25 hours/week)	Credits
380-046 Mathematics 1	4
320-098 Manufacturing Processes 1	4
320-046 Mechanical Technical Drawing	4
320-267 Metrology	3
320-266 Machining Processes	3
320-333 Manufacturing Management	3
941-102 Communications 1 *Pre-Req:* 941-205 Introductory Communications	4

Semester 2 (27 hours/week)	Credits
380-002 Mathematics 2 *Pre-Req:* 380-046 Mathematics 1	4
320-001 Statics *Pre-Req:* 380-046 Mathematics 1	4
320-337 Materials Science	4
320-218 Tool & Fixture Design *Pre-Req:* 320-046 Mechanical Technical Drawing	8
380-232 Computer Programming *Pre-Req:* 380-046 Mathematics 1	3
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4

Semester 3 (26 hours/week)	Credits
320-338 Dynamics *Pre-Req:* 380-046 Mathematics 1	4
320-076 Manufacturing Processes 2 *Pre-Req:* 320-098 Manufacturing Processes 1	4
320-052 Basic Strength of Materials *Pre-Req:* 320-001 Statics	4
320-287 CAD 1 *Pre-Req:* 320-046 Mechanical Technical Drawing	3
320-291 Die Design 1 *Pre-Req:* 320-237 Basic Tool & Fixture Design, 320-098 Manufacturing Processes 1	5
350-190 Electrical Controls 1	3
General Studies	3

Semester 4 (22 hours/week)	Credits
320-015 Numerical Control 1 *Pre-Req:* 320-266 Machining Processes	4
320-268 Manufacturing Cost Estimating *Pre-Req:* 320-076 Manufacturing Processes 2, 320-046 Mechanical Technical Drawing	3
320-292 Die Design 2 *Pre-Req:* 320-291 Die Design 1	6
320-290 CAD 2 *Pre-Req:* 320-287 CAD 1	3
General Studies (2)	6

Safety Engineering Technologist

North Campus

Six semesters beginning September

As a safety professional you will be involved in recognizing and evaluating potential loss-producing conditions due to occupational hygiene and safety problems. You will also be involved in the development of practical programs to prevent and control these potential losses.

The physical sciences, mathematics and management techniques with special emphasis on the concepts of occupational hygiene and safety engineering are topics considered in this program.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics or senior chemistry at the general level is strongly recommended)

Job Opportunities

As a graduate of Safety Engineering Technology you may find a challenging and rewarding career in various industries such as mining, forest products, petro-chemical, construction and manufacturing. Opportunities also exist within government agencies, safety associations and labour organizations. Possible positions include safety coordinator, loss control analyst and accident investigator.

Safety coordinators are actively involved in ensuring the health and safety techniques and of workers on and off the job. This position requires current knowledge of health and safety techniques and legislation and the ability to apply this knowledge to the everyday work situation.

Loss control analysts are instrumental in reducing costs, improving working conditions and thus maximizing the profitability of a particular industry as a direct result of minimizing health and safety situations. This ultimately benefits the consumer since the products produced are of better durability, quality, reduced hazard, and lower prices.

Accident Investigators are

Safety Engineering Technologist (cont'd.)

able to use technical experience and knowledge to investigate causes of accidents. Recommendations are then made that help to prevent similar incidents in the future.

Field Trip

Students in the final year of the program undertake a safety engineering field trip through Ontario. The College provides transportation but students pay for food and accommodation.

Curriculum

Semester 1 (26 hours/week)	Credits
380-046 Mathematics 1	4
320-098 Manufacturing Processes 1	4
320-046 Mechanical Technical Drawing	4
320-037 Total Loss Control	4
320-333 Manufacturing Management	3
380-182 Statistics	3
941-102 Communications 1 *Pre-Req:* 941-205 Introductory Communications	4

Semester 2 (26 hours/week)	Credits
380-002 Mathematics 2 *Pre-Req:* 380-046 Mathematics 1	4
320-001 Statics *Pre-Req:* 380-046 Mathematics 1	4
320-095 Fire Protection	4
380-232 Computer Programming *Pre-Req:* 380-046 Mathematics 1	3
320-222 Occupational Health (Physical Agents)	4
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4
General Studies	3

Semester 3 (27 hours/week)	Credits
320-338 Dynamics *Pre-Req:* 380-046 Mathematics 1	4
320-076 Manufacturing Processes 2 *Pre-Req:* 320-098 Manufacturing Processes 1	4
320-052 Basic Strength of Materials *Pre-Req:* 320-001 Statics	4
350-190 Electical Controls 1	3
320-353 Ergonomics	4
340-172 Hygiene Chemistry 1	4
320-221 Occupational Health (Chemical Agents)	4

Semester 4 (26 hours/week)	Credits
320-276 Industrial Security	3
340-173 Hygiene Chemistry 2	4
438-450 A.V. Techniques	4
380-171 Calculus 1 *Pre-Req:* 380-002 Mathematics 2	4
221-010 Elements of Accounting	4
253-111 Labour Relations *Pre-Req:* 251-020 Personnel	4
General Studies	3

Semester 5 (26 hours/week)	Credits
320-171 Product & Public Safety	4
320-281 Environmental Health	4
320-090 Operations Research *Pre-Req:* 380-182 Statistics	4
320-354 380-193 Computer Applications *Pre-Req:* 380-232 Computer Programming	3
320-258 Engineering Economic Analysis *Pre-Req:* 320-433	3
320-224 Plant Layout *Pre-Req:* 320-046 Mechanical Technical Drawing	4

Semester 6 (19 hours/week)	Credits
320-013 Industrial Psychology	4
320-091 Project Management	4
320-348 Occupational Health (Lifestyle)	4
320-212 Safety Program Development	4
General Studies	3

Small Craft & Marina Technology

Queensway Campus

Four semesters beginning September

As a student in the Small Craft & Marine Technology program, you will acquire a broad technical and practical understanding of small craft, their design, construction, operation, maintenance and repair. You also become familiar with the practical business and managerial aspects of a variety of yachting support and service activities such as: marina and yacht club operation, boat building and repair, wholesale and retail marketing of small craft and their equipment, yacht brokerage and charter fleet operation. The program structure is flexible, taking into account the needs of both full-time and part-time students - many of whom bring with them previous business, professional, trades, craft and seamanship experience.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior level science, general level (senior physics, general level is strongly recommended)

Small Craft & Marina Technology (cont'd.)

Job Opportunities

A great variety of occupations exist for graduates of the Small Craft & Marina Technology program. Boat building, boat maintenance and repair, wholesale, retail outlets, marina operations, club management, yacht brokerage and charter, federal, provincial, and municipal agencies, sailing schools/community courses in on-water activities.

Curriculum

Semester 1 (25 hours/week)		Credits
	Communications 1	4
371-046	Mathematics for S-C & MT	4
371-117	Seamanship 1 Power & Sail	3
371-150	Yacht Maintenance & Repair 1	8
371-108	Yacht Design 1	3
371-009	Sails & Rigging	3

Semester 2 (25 hours/week)		Credits
	Communications 2	4
	General Studies	3
371-001	Gas and Diesel Motors	4
371-250	Yacht Maintenance & Repair 2 *Pre-Req:* 371-150 Yacht Maintenance & Repair 1	8
371-036	Navigation	3
371-120	Electrical Circuits & Applications	3

Semester 3 (26 hours/week)		Credits
	General Studies	3
371-217	Seamanship 2 *Pre-Req:* 371-117 Seamanship 1 Power & Sail	3
371-208	Yacht Design 2 *Pre-Req:* 371-108 Yacht Design 1	3
371-218	Small Craft Electronics	3
371-037	Sailing School Charter Fleet Operations and Yacht Brokerage *Pre-Req:* 371-036 Navigation	3
371-350	Boatbuilding & Repair 1	8
371-119	Marina and Yacht Club Design, Construction and Operations 1	3

Semester 4 (24 hours/week)		Credits
	General Studies	3
371-213	Outboard Engines & Marine Drive Trains *Pre-Req:* 371-001 Gas and Diesel Motors	4
371-450	Boatbuilding & Repair 2 *Pre-Req:* 371-350 Boatbuilding & Repair 1	8
371-121	Standard Operating Procedures & Office Routine	3
371-129	Marina and Yacht Club Design, Construction and Operations 2 *Pre-Req:* 371-119 Marina and Yacht Club Design, Construction and Operations 1	3
371-039	Marine Contracts and Insurance	3

Survey Technician

North Campus

Four semesters beginning September

Do you enjoy working outdoors? Do you enjoy reading maps and looking at aerial photos? The surveying profession is a challenging one, and one that is vitally necessary for many phases of modern life. The property boundaries of our houses and the shapes of our shorelines are documented by this profession. Surveyors produce legal documents, topographical maps, and can map water depths. If you wish to participate in these activities, the Surveying programs are for you.

A Survey Technician must develop a diverse range of skills to be able to take part in this work. Our program will help you develop these skills.

You will learn to operate various types of surveying instruments, and how to perform calculations related to survey operations. You will learn to take celestial observations, and how to operate computer programs designed to produce survey drawings from collected data. You will learn to draw legal surveys and how to take depth soundings.

Each semester you will advance your knowledge of surveying and learn to operate more sophisticated electronic survey instrumentation. We will help you to develop your skills in operating these instruments and recording your results in various ways.

All Survey students will be initially enrolled as Survey Technician students. You will graduate as a Survey Technician after successful completion of two years of study. Qualified students may continue into the third year of one of our Survey Technologist options and may graduate as a Survey or Hydrographic Survey Technologist.

Admission Requirements

- Ontario Secondary School Diploma (O.S.S.D.) at or above general level, or equivalent or mature student status
- grade 12 English, general level
- grade 12 mathematics for technology, general level
- one senior science, general level (senior physics at the general level is strongly recommended)
- one senior technical course (drafting or technical drawing is strongly recommended)

Interests and Skills

- an interest in drawing
- an aptitude for mathematics
- good communications skills

Job Opportunities

Possible employers include private land surveyors, federal, provincial and municipal government agencies, construction companies and photogrammetric firms. Career opportunities exist in both outdoor and indoor conditions and include field positions such as chainman/woman,

Survey Technician (cont'd.)

rodman/woman and instrumentman/woman. Office positions include draftsperson and field data processor.

As a graduate survey technician you may be eligible to enter the Survey Technology Program. Successful completion of the 5th and 6th semesters will allow you to graduate as a survey technologist.

Curriculum

Semester 1 (25 hours/week)	Credits
330-038 Surveying 1	2
330-425 Survey Drawing 1	4
330-230 Mathematics 1	2
330-486 Survey Computations 1	4
330-012 Survey Camp 1 (Spring)	4
941-102 Communications 1 *Pre-Req:* 941-205 Introductory Communications	3

Semester 2 (25 hours/week)	Credits
330-039 Survey 2 *Pre-Req:* 330-038 Surveying 1	6
330-487 Survey Computations 2 *Pre-Req:* 330-486 Survey Computations 1	3
330-157 Hydrographic Survey 1	4
380-205 Mathematics 2 *Pre-Req:* 330-230 Mathematics 1	3
330-579 Computer Applications 1	3
941-103 Communications 2 *Pre-Req:* 941-102 Communications 1	4
330-426 Survey Drawing 2 *Pre-Req:* 330-425 Survey Drawing 1	2

Semester 3 (27 hours/week)	Credits
330-488 Control & Elect. Survey *Pre-Req:* 330-039 Survey 2, 330-487 Survey Computations 2	8
330-489 Hydrographic Field Applications *Pre-Req:* 330-157 Hydrographic Survey 1	4
330-490 Highway Technology *Pre-Req:* 330-039 Survey 2	4
330-383 Photogrammetry 1	3
330-206 Calculus 1 *Pre-Req:* Math 2	3
330-584 Computer Applications 2 *Pre-Req:* 330-579 Computer Applications 1	2
General Studies	3

Semester 4 (25 hours/week)	Credits
330-354 Astronomy	2
330-492 Advanced Survey *Pre-Req:* 330-488 Control & Elect. Survey	6
330-372 Air Photo Interpretation	3
330-493 Legal Survey Studies 1	5
380-207 Calculus 2 *Pre-Req:* Calculus 1	3
330-585 Survey CADD 1	3
General Studies	3

Survey Technologist

North Campus

Six semesters beginning September

Survey Technology shares the first four semesters with the survey technician program. The fifth and sixth semesters enable you to carry out more complex and challenging tasks such as: photogrammetry, cartography, geodetic control surveys, adjustment of observations and error analysis. The survey technologist will be able to supervise specialized field surveys, perform calculations for a plan of a subdivision, prepare the field layout of curves and spirals, use a computer program to adjust and analyse field observations, perform the title search, plan aerial mapping, and write technical reports on surveys conducted under their supervision.

Admission Requirements

- successful completion of Humber's Survey Technician program or upon recommendation of the academic division

Job Opportunities

Possible employers include private land surveyors, federal, provincial and municipal government agencies, construction companies and photogrammetric firms. Career opportunities include both field and office positions. Field positions include party chief and surveyor. Office positions include draftsperson, title searcher, supervisor or office manager.

Under the supervision of a surveyor your responsibilities may include laying out new property divisions and buildings, retracing old property boundaries, planning new subdivisions, and routing locations for highways, pipelines and utilities.

Curriculum

For first four semesters, see page 173

Semester 5 (26 hours/week)	Credits
330-098 Geodesy *Pre-Req:* 330-488 Control & Elect. Survey	6
330-203 Engineering Surveys	4
330-494 Automated Survey Applications	4
330-231 Statistics & Matrix Algebra *Pre-Req:* 330-230 Mathematics 1	4

Survey Technologist (cont'd.)

330-099 Survey Camp 2	4
330-495 Photogrammetry 2	4

Semester 6 (22 hours/week)	Credits
330-065 Adjustment of Observations *Pre-Req:* Statistics and Matrix Algebra Calculus 2	4
330-586 Computer Applications 3 *Pre-Req:* 330-584 Computer Applications 2	2
330-460 Advanced Photogrammetry	4
330-497 Cartography	4
330-498 Legal Survey Studies 2 *Pre-Req:* 330-493 Legal Survey Studies 1	6
330-091 Technical Project	2

Technology Short Programs

Cabinet Making

Queensway A Campus

48 weeks starting any Monday

Graduates of the Cabinet Making program will have studied the design and construction aspects of commercial and residential woodwork. They will have mastered the necessary skills for identifying, manufacturing and using the various wood joints, and will also learn how to use hand or power tools to produce them. They will also acquire a knowledge of wood finishes, their application by hand and mechanical means and a knowledge of the natural and man-made materials used in cabinet making.

Admission Requirements

- admissions interview
- pretests in communications and mathematics to be conducted at the college, at least one week prior to the student's proposed start date
- mathematical facility with whole numbers, fractions, decimals, percentages and measurement
- a good command of conversational English is also required.

Job Opportunities

Employment opportunities for men and women include design, construction, finish, installations, repair and modifications to commercial and residential cabinets, construction, installation of fine quality interior residential and commercial building woodwork.

Curriculum

- Veneer (kinds, applications, cutting, etc.)
- Plastic Laminates (composition, uses, grade, etc.)
- Hand Tools (safety rules, measuring, maintenance, etc.)
- Fasteners and Sandpaper (nails, screws, etc.)
- Wood Joints (identification and fabrication)
- Portable Power Tools and Stationary Power Tools
- Hardware (identification and installation of cabinet hardware)
- Cabinet Construction
- Finishing (staining, filling, protection)
- Drafting (basic principles)
- Lumber & Plywood
- Bending & Laminating
- Special Project: produce a project from specifications
- Job Search

Digital Equipment and Systems Electronics Certificate

Queensway A Campus

48 weeks is the average (prepared learning packages allow variable pace).

There is a growing need for digital and microprocessor-based electronic systems. Most electronic systems developed in the 1980's contain digital circuits. Some examples are home computers, microcomputers, automotive electronic systems, televisions and data communication systems.

The basic electronics of this program is common to that in the Radio and TV Receivers and Mobile Radio Communications program, but the latter part of the program specializes in varying types of digital systems.

Admission Requirements

- pre-admission interview
- pretests in communications and mathematics
- basic mathematical skills such as adding, subtracting, multiplying and dividing of whole numbers and fractions. Skills in basic algebraic expressions, and ratios will also be required.
- ability to effectively read and comprehend English

Job Opportunities

Graduates may expect to work for manufacturers, vendors and users of computerized equipment as troubleshooters, maintainers, and installers.

Curriculum

- Direct current circuits
- Personal Computer Applications
- Alternating current circuits
- Solid state devices
- Electronic circuits and applications
- Basic digital logic circuits
- Microcomputer Programming
- Microprocessors

Digital Equipment and Systems Electronics Certificate (cont'd.)

Video display system analysis and troubleshooting
Analysis of microprocessor based systems
Troubleshooting and repair of microprocessor based systems
Job Search

Note: Graduates of this program are normally admitted into any related technician/technologist program.

Industrial Maintenance Mechanic (Packaging), (Millwright)

Queensway B Campus

48 weeks starting every Monday

Length of program varies according to student's pace.

Teachers are available to students on a one-to-one basis.

We offer two programs: Industrial Maintenance (Millwright) Mechanic and Packaging Machine Mechanic.

These programs share a common core. The Millwright program is a regulated trade and so this program can be accessed by apprentices. The Packaging Mechanic Program is now registered and can be accessed by apprentices who require non-regulated training according to the new ministry guidelines. Those who are not already apprenticed can take the courses as fee paying students. (The fact that you have completed the in-school portion can be a benefit to some employers.) Both programs (as certificate courses) can be sponsored by C.E.I.C. or U.I.C. agencies.

Length of program varies according to student's pace because teachers are available to students on a one-to-one basis (average time is approximately 48 weeks). Students are trained to set up and adjust machines, change tooling, maintain and repair, overhaul, service the various machines used in the service, supply and process industries. This program specializes in various packaging machines used in filling, wrapping, canning, and bottling plants. Training is provided in hand and bench tools, machining, welding, pneumatics and hydraulics, electrical controls and mechanical drives, including repair, troubleshooting, and preventative maintenance.

Admission Requirements

- pre-admission interview
- pretests in communications, mathematics and mechanical comprehension
- working knowledge of mathematics including simple equations and basic formulae
- good command of English (written and verbal)

Interests and Skills

- ability to understand the principles of mechanics to apply them in the set-up, repair, and maintenance of machine parts
- knowledge of the principles of mechanics is a prerequisite for this program
- manual dexterity, ability to carry equipment up to 30 pounds in weight, as well as good eyesight and the ability to see colours distinctly

Job Opportunities

Industrial Maintenance Mechanics find employment working in a variety of industries such as metal cutting and fabrication, food and beverage processing, pharmaceuticals and cosmetics, and chemicals and paint. Duties include troubleshooting, maintenance and problems in plant machinery.

Packaging Machine Mechanics find employment in the food, pharmaceutical, beverage, and chemical industries, where you will set up and adjust packaging machines, change tooling, and maintain, repair and troubleshoot mechanical, electrical, and fluid power on the various packaging machines used in these fields.

Curriculum

Common core topics:
Safety
Measuring tools
Bench tools & fabrication
Hand tools & rebuild techniques
Blueprints & sketching
Welding & brazing
Soldering
Power transmission components
Lathes & mills & grinders
Cams & levers & timing
Conveyors
A.C./D.C. electricity
Electrical controls
Pneumatics/hydraulics
Industrial Maintenance (Millwright)
Overhaul & Maintain machines
Try out, test & run machines
Troubleshoot machines
Rigging & installation
Packaging Machine Mechanic
Packaging machine controls
Machine set-up
Machine maintenance
Troubleshoot machines

Industrial Woodworker Apprentice

Apprentices are taught the theory and practical components of the woodworking trade to complement their on-the-job training. The theory component gives the apprentice the necessary knowledge for writing the Provincial Certificate of Qualification exam.

For more information please contact: Mr. John Hefele at 252-9441, ext. 336 or Mr. Jeff Gill at 252-9441, ext. 266.

Machine Shop Practice

Queensway Campus

Forty weeks starting every Monday

This forty-week program enables the student to demonstrate competence in machine shop safety practices and procedures found in industrial shop situations, select and correctly use hand tools safely according to instructions and/or print specifications, select and correctly use appropriate measuring tools to measure within verbal and/or print specifications, identify and select ferrous and nonferrous metals for their specified application in machining work pieces, safely set-up and operate a variety of machine tools such as lathes, drill presses, milling machines and grinders and produce parts to print specifications, read and interpret blueprints and operational sequence sheets.

Admission Requirements

- admissions interview
- pretests in communications and mathematics to be conducted at the College, at least 1 week prior to the student's proposed start date
- a working knowledge of mathematics including whole numbers, fractions, decimals, percentage, measurement, ratio and proportion, signed numbers, square root and power
- a good command of English (written and verbal) is also required

Job Opportunities

Machine shop graduates are constantly in demand. Graduates may find employment with small, medium or large sized manufacturing companies. Some of the areas our graduates are employed in are machinists, machine operators, apprentice tool and die makers, inspector, set-up person and maintenance machinist.

Curriculum

Safety
Engine Lathe
Measurement
Milling Machine
Hand Tools
Surface Grinder
Cutting Tools
Blueprint Reading
Drilling Machines
Safe methods to set up and operate each machine
Select appropriate tools and follow verbal/print specifications
Life Skills: discuss and develop cultural, educational, political, economic and social skills, concepts and values in relation to self, family, job and community.

Marine and Small Powered Equipment Mechanic

Queensway A Campus

This is a continuous-intake 40-week program using prepared learning packages. Teachers are available on a one-to-one basis.

This program is designed to prepare you for employment as a mechanic for such things as two and four stroke engines, recreational vehicles, marine propulsion units, lawn and garden equipment and chain saws. You will learn how to repair and refinish fibreglass, use service manuals and parts books, use special service tools, weld, cut and braze metals, and carry out basic machining procedures. This program is accredited towards the Ministry of Education Apprentice Training Program.

Admission Requirements

After pretests in communications and mathematics (conducted by the College), you will attend an admissions interview prior to your proposed starting date. You should have a working knowledge of mathematics, including whole numbers, fractions, decimals, percentages and measurement. You should also be able to speak, read, and understand the English language without difficulty.

Job Opportunities

Opportunities exist in marine equipment dealerships, marinas, sports equipment and rent-all stores, construction equipment dealerships, lawn and garden wholesalers, retail outlets, equipment service centres, golf courses, hardware and department stores. With some experience in the field after graduation, you may advance to service manager, manufacturer's service representative, or you

Marine and Small Powered Equipment Mechanic (cont'd.)

may wish to go into business for yourself.

Work Environment

A normal five-day, forty-hour week is required. Weekend shift work may be included. Frequent physical activities include reaching, stooping, kneeling, lifting (up to 100 pounds) in an indoor/outdoor environment. For more information call 252-9441.

Curriculum

Identify components, construction features and operation principles of 2 and 4 stroke engines
Identify operation principles of carburetors, fuel pumps and supply systems (repair and adjust)
Explain operation of magneto, CD and battery ignition systems (repair, adjust and maintain)
Identify the nature, type, purpose and application of lubricants
Parts and service manuals--determine part numbers, prices and service procedures
Identify and properly use hand and power tools and test equipment
Repair and refinish metal and fibreglass components and equipment
Identify and properly use hand operated machining tools, accurately read and apply machine measuring tools
Diagnose faults in, adjust, repair, disassemble and rebuild mowers, garden tillers, snow blowers, garden tractors, chain saws, outboard motors, snowmobiles, boat trailers, marine rigging and wiring
Weld, using arc Welding equipment, Weld, cut and braze using oxyacetylene equipment
Explain the fundamentals of electromagnetism, inductance, capacitance, electrical circuitry and the operation of small AC and DC motors and generators
Learn small business operations required to operate your own shop

Marine Mechanic

Queensway

Start any Monday

40 week program

Learn at your own pace

Approval Pending

This program specializes in developing the skills required to repair outboard motors, inboards, stern drive propelled power plants and associated components.

Individual projects include complete rebuilding of outboard, motors and drive trains, troubleshooting and tuneups of all common marine enginges both gas and diesel and rigging of boats. Our students are also trained in the related areas of welding, machining, electrical basics, hydraulic, fiberglassing, and small business management.

This program parallels the requirements of the New Marine Mechanic Apprenticeship training profile. Successful completion of this program can lead to a completely versatile mechanic by taking our Small Engine and Powered Equipment Mechanic Program.

Admission Requirements

- pretests in communications and mathematics (conducted by the College)
- admissions interview prior to your proposed starting date
- working knowledge of mathematics, including whole numbers, fractions, decimals, percentages and measurement
- able to speak, read and understand the English language without difficulty

Job Opportunities

Our graduates can easily find jobs in the booming marine expansion along Lake Ontario or outside the large cities in cottage country or Northern Ontario. Marinas, yacht clubs, rental agencies, equipment manufacturers, boat dealers, department stores and charter boat companies are typical places of employment. With some experience in the field after graduation, you may advance to service manager, manufacturer's service representative or you may wish to go into business for yourself.

Work Environment

A normal five-day, forty hour week is required. Weekend shift-work and some overtime during peak seasons may be required. Frequent physical activities include reaching, stooping, kneeling, lifting (up to 100 lbs.) in an indoor/outdoor environment. For more information call 252-9441.

Mobile Radio Communications Electronics Certificate

Queensway A Campus

48 weeks is the average (prepared learning packages allow variable pace).

Areas that use mobile radio communications are police departments, security companies, fleet operators, taxi and service equipment dispatching. The use of mobile radio communications is also growing in the field of construction.

The basic electronics of this program is common to that in the Radio & T.V. Receivers and Digital Equipment and Systems program, but the latter part of the program specializes in mobile radio systems of varying types.

You will learn to install, troubleshoot, repair and align 2-way solid state mobile radio equipment.

Admission Requirements

- pre-admission interview
- pretests in communications and mathematics
- basic mathematical skills such as adding, subtracting, multiplying and dividing of whole numbers and fractions. Skills in basic algebraic expressions, percentages and ratios will also be required.
- ability to effectively read and comprehend English

Job Opportunities

You may expect to work for manufacturing companies of radio service systems and commercial VHF and UHF FM systems. You may also find employment with users of this equipment such as police departments, taxi companies, construction companies, telephone companies, and public utilities.

Curriculum

- Direct current circuits
- Personal Computer Applications
- Alternating current circuits
- Solid state devices
- Electronic circuits and applications
- Basic digital logic circuits
- Microprocessors
- Mobile radio receiver systems and servicing
- Mobile radio transmitter systems and servicing
- Communications antennas
- Job Search

Note: Graduates of this program are normally accepted into any related technician/technologist program.

Numerical Control Machine Programmer/Operator

Queensway B Campus

48 weeks starting every Monday

Graduates of this 48-week program are trained in the modern technological methods of numerical control machine tool operation, as well as in the writing and editing of manual-part programs. Practical skills learned include: machine set-up, tape preparation, cutter diameter and length compensation setting, and on-site modification of existing programs. The program uses prepared learning packages with the maximum of personal interaction between faculty and students. This allows students maximum flexibility in their rate of progress and in individual timetables.

Admission Requirements

- pre-admission interview
- pretests in communications and mathematics
- candidates must be functioning at a Grade 10 (BTSD Level 3) for direct entry. Candidates not achieving the admission requirements will be prescribed a College Preparatory program to upgrade their academic skills to the program entrance requirements.

Interests and Skills

A person interested in this occupation must have the ability to conceptualize the operations related to the programming and control of machine tools. The occupation requires an individual who is alert, perceptive and able to deal effectively with both tangible and intangible problems. Numerical ability and above average communication skills are also essential.

Job Opportunities

Progressive, technologically-modern companies are looking for well-trained operators and programmers. As these companies update their machinery, the Numerical Control Machine Programmer will be a vital member of their staff. Graduates can expect to work in industries such as production and jobbing shops, aircraft and aerospace, automotive, agricultural machinery production, plastic and rubber manufacturing, instrumentation, and service industries.

Graduates with a higher level of hands-on skill will find employment as operators and set-up persons. Those who excel in the programming area can become Numerical Control Machine Programmers and may advance into supervisory positions or into management. Additional training in computer programming and theory would enhance opportunities in Numerical Control (Systems) technology.

Generally, shops run the five-day, forty-hour work week with rotating shifts. The potential candidate can expect a limited amount of physical activity, with the greater part of the job requiring mental alertness.

Financial Assistance

Canada Employment and Immigration Commission (CEIC)

This program is approved by the the CEIC. If you qualify for sponsorship the cost of your tuition fees will be paid by the CEIC and may include a weekly training allowance. For further information and details on sponsorship contact your nearest Canada Employment Centre or the Registrar's Office of Humber College at 252-9441.

Curriculum

- Learn basic machine shop skills with emphasis on turning, milling and drilling.
- Learn numerical Control machine basic preparation (lubrication, set-up and start-up).
- Solve course related mathematical problems.
- Learn Numerical Control coordinate systems, codes, technology, and programming modes.
- Learn Numerical Control machine operation and production of parts using instructions supplied by programmer.
- Dry run, debug, and toubleshoot new programs on numercial control machines.
- Other topics

Precision Instrument Mechanic

Queensway A Campus

Approximately 48 weeks beginning any Monday

Based on individualized instruction, the program provides training in the practice of precision instrument manufacturing, service and sales. Graduates will be able to construct and modify components and assemble, repair, adjust and test precision instruments.

The program emphasis is on manual and machine skills such as metal cutting, forming and turning, soldering, welding and brazing as applicable to precision instrument requirements. Included is a mechanics industrial electronics program and introduction to sheet metal processes, industrial instrumentation, photographic equipment repair, introduction to computer programming and automation in robotics.

The continuous intake and the wide range of subjects makes this program an ideal basic and retraining vehicle for persons who like interesting technical work with varied opportunities for employment.

A Camera repair option is available.

CEIC sponsorship may be available to qualifying individuals.

Admission Requirements

- admissions interview
- pretests in communications and mathematics to be conducted at the College, at least one week prior to the student's proposed start date
- basic mathematical skills such as adding, subtracting, multiplying and dividing of whole numbers and fractions
- skills in basic algebraic expressions, percentages and ratios

Job Opportunities

Precision instrument mechanics are in demand by manufacturing companies, commercial, transportation and communication concerns, government and research establishments who manufacture, import and sell, service or use complex, precision, electromechanical, electronic, optical or photographic devices. Typical instruments are microscopes, photographic apparatus, and navigation and aircraft instruments. Graduates move readily into a wide range of technical situations and will be involved in fine part and prototype manufacturing, equipment and systems assembling, analysis, quality control and repair work. There are more than 200 companies in Ontario alone involved in precision instrument work.

Curriculum

Precision Instrument Mechanic With Camera Option Program Outline (Camera - 18 weeks; Precision - 30 weeks)

- Job Search Techniques
- Electric & Electronic Fundamentals
- Fabrication and Manufacturing Processes
- Precision Instrument Technology Fundamentals
- Applied Precision Instrument Technology
- Photo Technology
- Overhaul Photographic Equipment

Precision Instrument Mechanic Administrative Requirements (Precision - 42 weeks; Camera - 6 weeks)

- Drafting Fundamentals
- Industrial Instrumentation
- Electric & Electronic Fundamentals
- Computer and Micro Processor Fundamentals
- Fabrication and Manufacturing Processes
- Automation & Robotics Technology
- Precision Instrument Technology Fundamentals
- Precision Instrument Services and Repair
- Applied Precision Instrument Technology
- Welding & Sheet Metal Technology
- Electrical Circuits & Applications

Radio and TV Receivers Electronics Certificate

Queensway A Campus

48 Weeks is the average (prepared learning packages allow variable pace).

This program is designed to prepare you for employment in the electronics industry. You will apply theory and practice in basic circuit behaviour, solid state techniques, AM and FM radio, monochrome and colour T.V. You will also get experience on various types of test equipment used in the electronics service industry.

Admission Requirements

- pre-admission interview
- pretests in communications and mathematics
- basic mathematical skills such as adding, subtracting, multiplying and dividing of whole numbers and fractions. Skills in basic algebraic expressions, percentages and ratios
- ability to effectively read and comprehend English

Job Opportunities

Since the emphasis in this program is on troubleshooting and repairing electronic equipment, you can expect to work for companies who manufacture, distribute, and service many kinds of equipment. Jobs include the repair of radios and television receivers, auto radios and audio equipment, cable T.V. equipment, closed circuit T.V. equipment, security systems, office copying equipment and industrial automated production equipment. Opportunities also exist as sales/ service representatives with electronic distributors.

Curriculum

- Direct current circuits
- Personal Computer Applications
- Alternating current circuits
- Solidstate devices
- Electronic circuits and applications
- Digital Circuits
- AM and FM receiver systems
- Television systems and servicing
- Basic digital logic systems
- Microprocessors
- Job Search

Note: Graduates of this program are usually admitted into any related technician/technologist program.

Skills Update Electronics Certificate

Queensway A Campus

Specific short programs are set up to meet the objectives of individual students. Typical objectives could be meter reading, use of specific test equipment, component identification, assembly techniques, or soldering.

PREREQUISITE: Personal interview, by appointment, with Program Coordinator.

NOTE:

This program may be taken part-time, full-time, evenings or day-time. This flexibility should appeal to shift workers, or employers who wish to release employees for a period of in-college training to upgrade their skills. Because you work at your own pace on prepared objectives the program length, the timetable, even the course content can be modified by you or your employer.

NOTE: Contact 252-9441 for registration information.

Small Engine & Powered Equipment Mechanic

Queensway A

This is a continuous intake 40-week program using prepared learning packages. Teachers are available on a one-to-one basis.

Approval pending. Intro.

This program specializes in training for the repair of outdoor power, commercial small engine, lawn and garden equipment. Training builds from a concise knowledge of the basics to real shop experiences of diagnosis and repair. Included is basic training in gas and diesel engine powered equipment, electrical troubleshooting, welding, machining and small business management. This program parallels the requirements of the new Small Engine & Powered Equipment Mechanic Apprenticeship training profile. Successful completion of this program can lead to further specialization in our various marine programs.

Admission Requirements

- pretests in communications and mathematics (conducted by the College)
- admissions interview prior to your proposed starting date
- working knowledge of mathematics, including whole numbers, fractions, decimals, percentages and measurement
- able to speak, read and understand the English language without difficulty

Job Opportunities

Opportunities exist in sports equipment and rent-all stores, construction equipment dealerships, lawn and garden wholesalers, retail outlets, equipment service centres, golf courses, hardware and department stores. With some experience in the field after graduation, you may advance to service manager, manufacturer's service representative, or you may wish to go into business for yourself.

Small Engine & Powered Equipment Mechanic (cont'd.)

Work Environment

A normal five-day, forty-hour week is required. Weekend shift work may be included. Frequent physical activities include reaching, stooping, kneeling, lifting (up to 100 pounds) in an indoor/outdoor environment. For more information, call: 252-9441.

Curriculum

- Identify components, construction features and operation principles of 2 and 4 stroke gas and diesel engines
- Identify operation principles of carburetors, fuel pumps and supply systems (repair and adjust)
- Explain operation of magneto, CD and battery ignition systems (repair, adjust and maintain)
- Identify the nature, type, purpose and application of lubricants
- Parts and service manuals--determine part numbers, prices and service procedures
- Identify and properly use hand and power tools and test equipment
- Diagnose faults in, adjust, repair, disassemble and rebuild mowers, garden tillers, snow blowers, garden tractors, chain saws, snowmobiles, trailers, pumps and construction equipment
- Weld, using arc welding equipment. Weld, cut and braze using oxyacetylene equipment
- Explain the fundamentals of electromagnetism, inductance, capacitance, electrical circuitry and the operation of small AC and DC motors and generators
- Learn small business operations required to operate your own shop

Welder Fitter

Queensway A Campus

40 weeks starting every week

Graduates of this program are proficient in fitting and welding pre-fabricated and forged metal components, applying a knowledge of the physical properties of metal and the effects of heat, and weld shrinkage. The student learns both the practical and theoretical application of all the basic welding processes. These include SMAW (stick), GTAW (TIG), GMAW (MIG), FCAW (Flux core) and Oxyacetylene Welding.

Admission Requirements

- admissions interview
- pretests in communications and mathematics, to be conducted at the college, at least one week prior to the student's proposed start date
- mathematical facility with whole numbers, fractions, decimals, percentages, measurement, ratio and proportion
- a good command of English (written and verbal)

Job Opportunities

Graduates may work in specialized welding shops or large and small general manufacturers in which welding is an integral part of production (i.e. construction and/or transportation)

Curriculum

- Shielded Metal Arc Welding, "Stick Welding"
- Joint, Electrodes and Symbols
- Shielded Metal Arc Welding, vertical up and overhead
- Oxy-acetylene Welding
- Tungsten Inert Gas Welding, "TIG"
- Metal Inert Gas Welding, "MIG"
- Blue print reading
- Job Search

Course Descriptions

A.C. Equipment 1 354-108
To lead the student to comprehend the principles of operation of power transformers and three-phase induction motors.

A.C. Equipment 2 354-203
To lead the student to comprehend the principles of operation of the alternator, the synchronous motor, single-phase motors and the controls thereof.

Adjustment of Observations 330-065
Theory of errors, intervals of confidence, sample testing, outlier test, adjustment of direct observations same accuracy and different accuracy, parametric method, varcov matrix and the elipse of errors, use of computer program manor for adjustment of geodetic networks.

Advanced Drafting (Commercial) 330-571
The student will participate in a group project to prepare a complete set of working drawings including details and schedules for a small commercial plaza based on design drawings provided.

Advanced Drafting (Residential) 330-596
The student will broaden his/her knowledge in architectural drafting and construction by studying a medium density low-rise housing project. Projects will consist of sets of site development and working drawings, and models.

Advanced Photogrammetry 330-460
Review of types of aerial triangulation, point marking and transferring, point measuring on a stereo comparator. Preparation of measured data, strip formation, and block adjustment with computer programs.

Advanced Survey 330-492
Direction method for a set of directions, intersection from angles and azimuths,resertion, integrated surveys, calibration of EDM on known base, interlining on long line, refractive index, barometric levelling.

Air Photo Interpretation 330-372
Landform identification, natural and man made features identification, nature and properties of solar radiation, and study of specific landforms from aerial photos.

Algorithms & Data Structures 1 350-212
This course provides a comprehensive discussion of data structures, followed by a detailed study of operations on and applications of arrays, linearly linked lists, trees and hash tables. Applications include sorting, searching, sequential and random file handling.

Algorithms & Data Structures 2 350-218
This course continues the study of fundmental algorithms and data structures started in Algorithms and Data Structures 1. It emphasizes the concepts of building extendable libraries and software tools and applying techniques for improving program efficiency. During the course the student will write algorithms for string handling primitives, data compression, pattern matching and graph manipulations as well as study file structures and file access methods (SAM, ISAM etc.).

Analysis Instruments 328-017
The learner in this course will understand the principles used in analysis instruments. The student will learn how these instruments are used to measure individual component concentration in process medium.

Upon completion of the course he/she will be able to: operate, calibrate and maintain instruments measuring humidity, moisture, pH, conductivity, gas sample composition (including gas chromatography), air and water quality.

Analytical Chem. 2 340-066
The student will learn the general principles of modern instrumental techniques involving; nuclear magnetic resonance, mass spectrometry, emission spectroscopy (DCP, ICP) polarography and derivative formations for G.C.

Analytical Chem. 2 Lab 340-159
The student will be able to analyse water pollutants, industrial products and wastes for trace metals, non-metallic impurities and for pesticides by using conventional chemical or instrumental methods of analysis involving NMR, MS, AA, IR, UV, HPLC and polarography.

Analytical Chemistry 1 Lab 340-156
The student will learn the basic routine laboratory techniques of chemical analysis: analysis of samples (ores, cement, food stuffs, etc.) by titrimetric and gravimetric analysis. Students will record and interpret experimental data, calculate results based on the data, research standard procedures and adopt the method best suited for a specified purpose. Safe laboratory practices and techniques are promoted.

Analytical Chemistry 1 Lecture 340-058
The student will acquire the basic principles of "wet" analytical chemistry and calculate solution strength, percent composition, solubilities, ionization constants, and factor relationships based on neutralization reactions, titrimetric precipitations, complexometric titrations, oxidation and reduction reactions and gravimetric analysis.

Applied Calculus 380-229
This course reviews of differentiation and integration, integration techniques, average and RMS values continuing with the treatment of area in polar coordinates, Maclaurin and Taylor series, fourier analysis and laplace transform analysis of second order systems as applied to electronic circuits.

Applied Electromagnetics 350-148
The student studies basic field theory as introductory information to the concepts of electromagnetic radiation. Simple radiators, arrays of sources and fields due to ground reflection are studied, as well as propagation in free space and near the surface of the earth.

Applied Statistics 380-195
Although the prerequisites for this course are Math 1 and Math 2, this course is intended for students in the 6th semester electronics. Most of the applications therefore will be relevant and useful for these students.

The statistic topics include measures of central tendency and variation for both grouped and ungrouped data, descriptive statistics and frequency distributions, binomial discrete and normal continuous distribution, reliability, redundancy and availability, linear regression and correlation, central limit theorem and estimations. As much as possible, examples and application from the field of electronics will be used.

Arch. CADD 2 330-555
The student will gain skills in Computer Aided Drafting and Design using AutoCad software on IBM microcomputers.

Arch. Design Drafting (Mixed Use) 330-563
The student will design, and prepare presentation and working drawings, and models for a multipurpose building.

Arch. Design Drafting (Residential) 330-558
The student will broaden his/her knowledge in architectural design and construction and improve skills in architectural drafting by studying various density housing projects. Projects will consist of sets of site development, presentation and working drawings, and models. Students may choose to participate in a current architectural design competition.

Arch. Drafting & Detailing 330-553
The student will broaden his/her knowledge in architectural design and construction, and improve his/her skills in architectural drafting by studying a three-storey masonry, heavy timber, and precast concrete structure. The student will design and prepare presentation and working drawings, and models for a residential home for the elderly, a motel, or a ski lodge in compliance with the Ontario Building Code.

Arch. Graphics 330-592
Students will investigate architectural graphic presentation techniques. Course content will include linework, lettering, graphic conventions, layouts, and axonometric projections.

Architectural Conservation and Restoration 330-406
Given the increasing importance of preserving the fabric of our architectural heritage, this course will present an overview of historical styles and structural systems, building construction meth-

ods of the past, and techniques for preserving and restoring historical buildings. The student will undertake a major restoration project on an historical Toronto building.

Architectural CADD 1 330-552

The student will gain skills in Computer Aided Drafting and Design using AutoCad software on IBM microcomputers.

Architectural Design and Presentation 330-594

Students will study the principles of design development and a variety of architectural presentation techniques to produce presentation drawings using pencil and multimedia techniques, including technical shading, rendering of materials and landscaping, one and two point perspective drawings with supporting elements such as landscaping, cars and people.

Architectural Design 1 330-593

The student will be taught the basic principles of architectural design.

Architectural Environmental Systems 1 330-590

The student will gain an overview of the environmental systems used in modern architecture, including heating, ventilating, plumbing, electrical systems, and air conditioning. The student will study the fundamental principles of heat loss, heat gain, the air conditioning process, fans and air distribution devices, plumbing and electrical systems as related to residential and industrial structures.

Architectural Environmental Systems 2 330-591

The student will gain a thorough qualitative understanding of heating, air conditioning, plumbing and electrical systems used in commercial and institutional structures. The student will enhance the knowledge gained by producing typical mechanical, plumbing, and electrical drawings required for a commercial multistorey office building.

Architectural History 330-566

This course traces the development of architecture from the Egyptian period to the present day. The roots of twentieth century architecture and the many aspects which influenced the architectural developments during the period 1750 to the present day will be explored in detail.

Architectural History 330-597

This course traces the development of architecture from the Egyptian period to the present day. The roots of twentieth century architecture and the many aspects which influenced the architectural developments during the period 1750 to the present day will be explored in detail.

Architectural Structures 1 330-587

The student will gain a firm qualitative understanding of the nature of forces, types of loads, bearing and non-bearing structural elements, and types of structural systems, the student will gain skills in the basic quantitative concepts of resolution of forces, equilibrium, reactions, couples, moment, free-body diagrams, centroids, an introduction to stress and deflection analysis and an introduction to shear and moment diagrams.

Architectural Structures 2 330-588

The student will gain a thorough qualitative understanding of the principles governing design, placement, and connection of structural steel and reinforced concrete building elements. Knowledge gained will be reinforced through the drafting of a number of structural elements including details, sections, framing plans and elevations.

Architectural Structures 3 330-589

The student will gain a thorough qualitative understanding of the principles governing design, placement, and connection of load-bearing masonry, precast concrete and heavy timber building elements. Knowledge gained will be reinforced through the drafting of a number of structural elements including details, sections, framing plans and elevations.

Astronomy 330-354

Application of astronomy to surveying problems. Determination of azimuth, latitude, and longitude. Study of celestial sphere S.P.Z. triangle, various systems of co-ordinates and spherical trigonometry and application of the theory to actual field observations.

Automated Survey Applications 330-494

Use of high precision informatic theodolite and electronic data recorder, electronic total station and use of surveying software system for data processing.

Automatic Controls 1 328-106

This course provides an introduction to the measuring element and the controller which form part of a closed loop control system. The other two elements of a closed loop, namely, the final control element and the process itself are more thoroughly covered in Final Control Elements (328-018) and Auto Controls 2 (328-206). The student calculates and measures the dynamic performance of sensors and controllers.

He tunes proportional, reset, and derivative settings of closed loop controllers. He studies cascade, ratio and multivariable control loops. He sets up the loops and a sequential pump control scheme in the shop, and prepares clear and concise reports on his findings.

Basic Strength of Materials 320-052

Stress and deflection analysis is essential in order to design practical and safe components that are functional. This is an introductory course in the theory of elasticity. The student will calculate stress and strain for metal components and other building materials. This course is designed for third semester technology students who have successfully completed the statics and mechanics courses in addition to Math 1 and 2.

Basic Strength of Materials 330-527

This is an introductory course in the theory of elasticity in which the student will calculate stress and strain for metal components and other building materials.

Basic Tool & Fixture Design 320-237

This course is aimed at enabling the student to understand what tool design is and its place in industry. Procedures of blueprint readings for tool design purposes, tool drafting vs. other drafting techniques, view selection rules for dimensioning and tolerances will be discussed. The student will be involved in practical design activity for most of the time by working on such projects as: single point and form cutting tools, template design, drill fixture and compound die design.

Biochemistry 340-163

The student will be able to supply the theoretical background for applications in the biochemical field. The chemistry of compounds of biological significance (proteins, carbohydrates, lipids, DNA, RNA, colloids, enzymes, vitamins, hormones, etc.) is included. The chemical nature and reactivity of these compounds will be related to the techniques of isolation, purification and assay.

Biochemistry Lab 340-073

The student will carry out experiments in biochemistry which will relate to the theoretical material covered in biochemistry lectures and have application in the fields of clinical and industrial biochemistry. Separations (chromatography, gel filtration, ion exchange, electrophoresis), analysis of food and body fluids (carbohydrate, vitamins, fats, hormones, etc.) and analysis of enzymatic reactions (respirometry, clinical enzymology) are included.

Boatbuilding & Repair 1 371-350

This course offers basic hands-on experience in the lofting, building and repair of small craft in wood and fiberglass reinforced plastic.

The course will enable the successful student to assess and explain small craft specifications and drawings. As well, it will require him/her to practice and explain the laying down and lofting of small craft from offsets and designers specifications and to be able to select and calculate lists of materials used in repair and building of small craft.

Within this course the student will construct a small dinghy complete with mast, boom, daggerboard and rudder.

Boatbuilding & Repair 2 371-450

The course will enable the student to further his/her hands-on experience in the lofting, building and repair of small craft in wood and fiberglass reinforced plastic.

Within this course the student will construct a fiberglass reinforced mold from a plug, layup a fiberglass reinforced small craft, fabricate F.R.P. parts and wood assemblies such as a grating, steering wheel, wooden bucket, toolbox, deckhatch, laminated tiller, etc.

Business Management 330-574

The student will gain skills related to the setting up and operation of a small business with particular emphasis on the operation of a small contracting firm.

BASIC Programming 380-225
The student will be able to operate a microcomputer system including a disc drive and a printer. He/she will be able to solve scientific and technical problems using the language BASIC.

C.A.D. for Electronics 350-237
This course is the first part of a two-semester subject, in which the student produces a set of drawings for, and then builds, a project. In this design part of the subject a student masters the basic skills of Electronic Drafting and Printed Circuit Board (P.C.B.) layout techniques and becomes familiar with a cross-section of drafting conventions and practices. A suitable project (small amplifier, power supply, function generator, frequency analyser, or similar) will be assigned by the instructor and a complete set of drawings to good commercial standards will be produced. Each drawing assignment is a practical application of lecture theory, and the student gradually develops drafting skills and the Electronic P.C.B. design understanding as this course progresses.

The student will be exposed to manual drafting techniques and Computer Aided Design Drafting (CADD).

This course incorporates the AutoCADD graphics software by Autodesk Inc. as a tool to perform electronics drafting.

Calculus & Computer Applications 1 350-244
This introductory calculus course covers techniques of finding derivatives and integrals using graphical, analytical and computer-based numerical methods (using Pascal). Applications to simple RC circuits, velocity and acceleration problems, maximum/minimum problems, and areas under curves are emphasized using polynomial, trigonometric and exponential functions.

Calculus & Computer Applications 2 350-245
This course briefly reviews the differentiation and integration techniques, and continues on to cover Maclaurin and Taylor series expansions, Fourier series, and the analysis of simple electrical systems uses Laplace (S operator) methods. Both analytic and numerical methods (using Pascal) are covered.

Calculus 1 380-206
Pre-calculus topics include linear functions, quadratic functions and semi-log and log-log graphs.

The introductory calculus includes both differential and integral calculus-average rates of change, instantaneous rates of change, rules for finding derivatives, critical points on curves, maximum/minimum problems, differentials and small changes, related rate problems, exponential functions, anti-differentiation, areas under curves, definite integrals and their applications.

Calculus 1 330-206
Analytic geometry, differentiation, integration and applications to different problems.

Calculus 2 380-207
Differentiation of trigonometric, exponential and logarithmic functions. Application of differentiation to distance, velocity and acceleration, maximum and minimum of functions, integration of non-algebraic expressions.

Cartography 330-497
Computation and plotting of map projections with computer programs and drum plotter. Photographic theory and dark room procedures. Overlays, colour-proofs, scribing and printing of maps.

Chem. Eng. Proc. Evaluation 340-167
This course introduces basic methods and principles employed by chemical engineers in the analysis and design of physical and chemical processes. Chemical engineering economics and process design are emphasized.

Chem. Process Calculations 340-162
This course assists the student in understanding the material and energy balance principles as related to the analysis of chemical processes. This understanding is further enhanced by application of this knowledge to actual operations.

Chem. Separation Processes 340-166
This course deals with basic principles of industrial chemical separation processes. Special emphasis will be on such unit operations as evaporation, distillation, absorption and extraction, humidification and dehumidification, drying and filtration.

Chem. Thermodyn. & Kinetics 340-160
The student will be able to use Gibbs free energy and other chemical thermodynamics functions to solve problems related to chemical processes, as well as chemical kinetics, to determine and explain the rate of chemical and biological processes.

Chemistry 340-154
Students will continue to learn fundamental principles of chemistry, including concentration of solutions, neutralization, rates of reaction, equilibrium, oxidation-reduction, ionization and pH.

Chemistry (Intro) 340-153
The course begins with a review of basic principles of chemistry which comprise matter, atomic structure, periodic table, balancing of reactions, preparation of solutions and titrations involving acids and bases. This course also includes discussions and experiments of bioscience.

Chemistry 1 389-100
Basic principles of chemistry are covered as pertains to the following: matter, atomic structure, periodic table, chemical bonding, formulas and nomenclature; the mole, equations and reactions, solutions, acids and bases.

Chemistry 2 389-203
The following industries are studied: pulp and paper; nuclear industries, petroleum processing and petrochemicals, water conditioning and environmental protection.

Emphasis is placed on an understanding of the process, flow charts and diagrams, chemical conversion reactions, equipment and instrumentation for proper control of the system.

Circuits & Measurement 350-107
This course provides the student with a sound understanding of the effect of resistance, inductance and capacitance in series and/or parallel DC and AC circuits. Measurement techniques related to these circuits are also emphasized.

Civil CADD 1 330-582
The student will gain skills in Computer Aided Drafting and Design using AutoCad software on microcomputers.

Civil Drafting 1 330-523
This course will provide the student with the skills and knowledge to produce construction drawings of reinforced concrete structures and details.

Civil Drafting 2 330-581
The student will acquire more advanced skills in the drafting of civil engineering construction documents, concentrating on advanced reinforced concrete plans, details and sections.

Combustion Technology 320-319
This course has been designed to teach the characteristics and application of natural gas as a fuel. Students will become familiar with the Ontario Gas Utilization Code concerning piping venting, safety devices, and controls, together with the procedures and design standards required to obtain government approval of installations.

Comm. Syst. 1 320-029
The course encompasses central systems and all-air systems including single-zone variable air volume, dual-duct, and multizone. The student will be able to analyze commercial systems, design layouts, specify components and troubleshoot.

Comm. Syst. 2 330-502
The course is based upon a series of theses presentations which have been researched by and assembled by students. There is one test given on each presentation in the class immediately following the presentation.

Commercial Drafting & Detailing 330-595
The student will broaden his/her knowledge and skills in architectural design, drafting, and detailing by using a multi-storey, poured and precast concrete structure as the basis for study and design. The student will prepare presentation and working drawings, and models for a four-storey office complex with one-level of underground parking, The drawings will be prepared in compliance with the Ontario Building Code.

Comp. Prog. for Chem. Ty. 380-192
Through proper application of the skills developed in this course the student will be able to use a computer with BASIC language capabilities to solve technical and non-technical problems. The student should be able to utilize these skills in solving course related problems to be encountered during the remainder of his/her program.

Computer Application Packages 350-242

This is a survey course of software packages running mainly on the IBM PC or PC compatible. Topics include: DOS, wordprocessing, spreadsheets, databases and graphic editors. Commercial, shareware and public domain packages in each of these areas will be used throughout the course. If time permits, communication packages and services will be examined.

Computer Applications 380-193

An introduction to the application of canned programs in both the main frame and small computer systems to solve industrial engineering problems.

Computer Applications 1 330-579

An introduction to the use of commercially available applications programs including spreadsheets, word processing, and database managers.

Computer Applications 2 330-580

An introduction to the "computerization" of geotechnical testing instruments. The student will study the use of transducers and computer interface equipment to collect, analyze and display geotechnical test data on microcomputers.

Computer Applications 2 330-584

Students will gain skills in using spreadsheet and database programs to solve typical survey applications on both microcomputers and main-frame computers.

Computer Applications 3 330-586

Matrix operations on a mainframe computer, use of statistical programs and SAS package, applications of programming to specific survey problems on IBM PC computers.

Computer Architecture 1 350-208

This is an introductory course in computer organization and structure that examines the operation of the computer from the viewpoint of its functional block diagrams - the control unit, the arithmetic unit, the memory unit, and the I/O (input/output) unit. The specific topics examined include data representation, the register set, the fetch/execute cycle, microprogramming, and I/O transfer methods and interrupts. The concepts and topics are illustrated by studying the National Semiconductor NS32000 microcomputer family.

Computer Architecture 2 350-233

This course covers additional examples of the concepts and topics started in Computers Architecture 1. The examples are drawn from a single board computer based on the National Semiconductor NS32XXX 32-bit microcomputer family or the Motorola 680X0 family and the VAX 11/750.

Computer Control 328-019

This course deals with the configuration operation and application of push button control equipment that falls under the category of "Computer Control". The hardware used in this course falls into two groups namely, large and small scale. Large scale systems are demonstrated with the use of a Honeywell TDC 3000 and for small scale operations an IBM PC with appropriate interface and software is used.

Computer Programming & Concepts 354-106

This course provides introductory skills in operating and programming of microcomputers. It involves learning the computer language BASIC and practice in solving problems through the use of the microcomputer's capabilities.

Computer Systems Project 350-250

The student has a choice of either working on his/her own project or a project assigned by the staff. The projects have a guideline of 60% software to 40% hardware and should involve the integration of concepts and topics covered in the first five semesters.

Computers in Business 350-205

This is a survey course on the use of computers in the business environment. It covers such topics as typical business tasks performed by computers, the function of various EDP jobs, computer security and crime, elements of office automation, spreadsheets, databases, data banks, computer networks and artificial intelligence. Upon completion, the stuent should have a greater understanding of the role and impact of computers in the business environment.

Computers in Manufacturing 350-239

This course deals with the practical applications of microcomputers to the manufacturing environment. It primarily involves a case study of the development of an inventory control system. Under the direction of a project manager, the development is broken down into several modules, with each student being responsible for a different module and the interface to the other modules. Although Dbase III running on a PC XT will be used, the student will be expected to comment on the suitability of the hardware and software used.

Construction Admin. (Contracting) 330-570

This course deals with the construction industry with particular emphasis on company structure, organization and management. The student will learn how to work effectively in an administrative and management role in planning, scheduling and organizing a construction project.

Construction Admin. (Professional) 330-573

This course will follow administrative, professional, and management roles through the various stages of a construction project. Computer applications will be introduced in planning, scheduling and resource management. Specific emphasis will be placed on communications skills with a major written/oral technical presentation.

Control & Elect. Survey 330-488

Use and operation of electronic distance measuring instruments, one second direction theodolite, corrections and reductions of observations, transverse mercator co-ordinate system, scale factor, trilateration, trigonom elevations by recipricol zenith distances.

Control Systems 354-406

An introduction to feedback controls as applied to all-electrical and electro-mechanical systems. The aims of feedback are given. Block diagrams and system hardwares are described. Students are led to relate response to specific inputs. Treatment is more physical and qualitative than mathematical. Approximately equal times are allotted to transient and steady-state behaviours. Characteristics of energy-dissipating elements are compared and their effects on the controlled outcome are stressed. Stabilizing techniques are introduced.

Control Systems 350-149

Recent advances in computer technology and the subsequent profusion of microprocessors into practical control systems have given new flavour to control system technology. This course addresses itself to some of the principles and applications of open-loop and closed-loop control systems in both the continuous and digital domain.

CAD 2 320-290

CAD 2 is a continuation of CAD 1. The basic drafting skills learned in CAD 1 will be expanded upon in a mechanical design context. The student will also be introduced to surface and solid modelling.

CADD Studio 1 330-562

The student will have access to a Computer Aided Drafting and Design studio to develop further skills in the preparation of drawings, schedules, and other CADD-related documents.

CADD Studio 2 330-567

The student will have access to a Computer Aided Drafting and Design studio to develop further skills in thepreparation of drawings, schedules, and other CADD-related documents.

CAM 1 320-340

The student will learn to use the application software specialities of the Applicon system. The student will learn to create plain and cylinderical surfaces, filleting techniques to blend surfaces. Using existing part drawings, the students will learn to create tool paths of drilling--turning and milling source and tape files. Students will be able to use the BRAVO NC editor to plot-edit and manipulate CNC files.

Students will learn to use the solids package to create parts-features and assemblies to perform UNION-COMMON and subtract operation as well as analyze the mass-properties of the solid models. The student will learn to use the GRAFEM software to analyze simple stress-strain conditions.

D.C. Equipment 354-207

The course is designed to teach the student the construction, operation, characteristics and control of D.C. motors and generators, enabling him/her to foresee problems and to calculate pertinent information relevant to the application of such machines.

Data Communications 350-231

The emphasis is on the transmission of digital data through the analog telephone system and through digital networks. Modems, the RS-232 interface, and three common digital protocols (BISYNC, X25, Ethernet) are investigated. A PCM system is analysed.

Data Communications Systems 1 350-211

After an introduction to information theory and the characteristics of the telephone system the course concentrates on computer-computer communications, covering RS-232, RS-422, RS-423, asynchronous modems, synchronous modems, and multiplexers.

Data Communications Systems 2 350-222

An explanation of the terms used to describe computer networks leads to a detailed investigation of such network protocols as BISYNC, X25, and Ethernet. Network performance is analysed using queuing theory and graph theory. Error detection and error correction is also covered.

Design Loads 1 320-252

The course involves the calculation of heat loss and heat gains for residential buildings, including the design and drawing of the appropriate forced air distribution systems. To accomplish this, the student will study the principles of heat transfer, methods of moving air, duct layout and equipment selection.

Design Loads 2 320-253

The student will learn the requirements and procedures for calculation, design, selection of equipment and installation of air conditioning and heating requirements to meet design criteria as calculated by heat gain and heat loss procedures for commercial buildings.

Design Loads 3 320-254

The student will learn the requirements and procedures for design and selection of centrifugals and reciprocating chillers, absorption equipment and accepted installation practices of air conditioning and heating requirements to meet design criteria as calculated by heat gain and heat loss procedures for commercial buildings.

Development & Planning 330-565

The student will develop an understanding of the existing urban environment, its form, its structure, and its function; the factors which influence its development. Problems created by urban development will be identified and the student will be encouraged to seek solutions of adjustment and modification in the urban environment. The student will be introduced to various planning principles and legislation governing land use matters.

Die Design 1 320-291

The course is aimed to identify and explain the fundamental requirements which must be known and understood for a large number of cold press-work operations and to provide the student with the theoretical methods in calculating and analysing components of sheet metal produced by cutting and forming. The student will be involved in practical design activity for most of the time; die details, function nomenclature as well as die and drafting techniques will form the core object of the course. Projects will consist of: two-stage-piercing blanking die, compound die and bending die.

Die Design 2 320-292

Using the principles laid out in Die Design 1, the student will solidify and expand on his design techniques by performing practical die design assignments. The student will be involved in drafting and design activity for most of the time by working on projects such as: adjustable die design for short run production, drawing dies, curling dies, and stamping die estimating methods, etc.

Digital Circuits 354-405

This course introduces the basic concepts of solid state control systems as found in today's industry. The operation and application of the basic logic gates are developed and then used in flip flops, counters, shift registers and other typical industrial control systems. Binary counting and boolian algebra are also included to further develop an understanding and analysis of the circuits.

Throughout the course the student is taught to convert the logic circuits to conventional relay circuits, and how to utilize the Boolean algebra with relays circuits as seen in programmable control systems.

Elect. Production Technology 350-238

The student will gain experience in soldering, wiring, printed circuit board production, negative film making, parts identification, assembly techniques and light sheet metal fabrication. This will be done through the construction of a combined power supply function generator using industrial proto-typing techniques. Safety procedures, manufacturing practices, testing procedures and troubleshooting methods will also be learned. The final project will be built to good quality workmanship standards. A complete specification book Technical Report must be presented by each student after testing procedures are completed.

Electrical Circuits & Applications 371-120

This course will cover the basic concepts of electrical theory, circuits and wiring applications of small craft and marinas with relation to trade practice and governed by the Canadian Safety Standards for Electrical Installations in small craft and marinas.

Electrical Circuits & Applications 1 354-107

The course is designed to introduce the student to Direct Current and Magnetic Circuits.

The student will be able to understand the use of and reading of meters; the calculation and measuring of resistance, voltage, current and power in various series/-parallel circuits, using Ohm's, Kirchhoff's, Thevenin's, Norton's, Millmans and Superposition Theorems; understanding capacitance, time constants, charging and discharging of capacitances through resistances. The characteristics of magnets and magnetism, Faraday's and Lenz's Laws, Inductances and the application of RL circuits.

Electrical Circuits & Applications 2 354-208

The course is designed to introduce the student to Alternating Current Circuits. The student will be able to operate and understand the Oscilloscope and Frequency Generator. Compare direct and alternating current, the phase relationships, application of inductances and capacitances in series and parallel, and at resonance. Relationship of power and power factor in inductance and capacitive circuits. Identification and use of filter circuits.

Electrical Circuits & Applications 3 354-302

To inculcate the student in the understanding, analysis and applications of common polyphase power circuits. The student will be able to measure and determine pertinent values related to three-phase circuits.

Electrical Controls 1 350-190

The first course in electrical theory introduces mechanically oriented students to electrical circuit theory. Use of basic electrical instruments to make voltage, current and resistance measurements is stressed. DC circuit work is dealt with in detail with an introduction to alternating current circuitry.

Electrical Design 1 354-303

This course covers electrical design procedures, drafting room practices, drawing fundamentals, physical layouts, wiring methods, construction methods and materials and the necessary code requirements.

Also included is the development of single line diagrams, three line diagrams, elementary and wiring diagrams. Design projects are assigned and carried out under the guidance of an instructor with specific emphasis on skill and quality.

Electrical Design 2 354-402

This course is a continuation of Electrical Design 1. It includes further development of the information learned in Design 1, relevant to the programmable controller. The course covers operational flow diagrams, bills of material, protection systems, introduction to programmable controllers descreate I/O, analog I/O, and program loaders of various types.

The student will also be required to design all pertinent information for a small and a large project based on the use of the programmable control system.

Electrical Measurements 380-238

The student will apply fundamentals of electricity to typical measuring instruments which are relevant in the chemical and biological field with appropriate problem solving and laboratory exercises.

Electricity 1 330-431

This course introduces the student to DC and AC electrical theory. Electrical services used in industrial and domestic applications will be discussed. The student will become familiar with the theory of electric currents and simple circuits and will be able to solve related problems.

Electricity 2 330-432

This course continues the basic study of electricity commenced in Electricity 1. It is assumed that students enrolled in this course are thoroughly familiar with the work covered in Electricity 1. The course covers AC and DC circuits, including three phase systems. Various types of DC and AC motors are studied together with their starting systems and protective devices.

Electro-Mechanical Techniques 350-185

This course provides an understanding of the behaviour, operation, application, and theory of electromechanical devices employed in electronic equipment and robotics. Principles of closed loop and open loop control systems (servomechanisms) are discussed. Properties of common material used, corrosion, cathodic protection, and fastening methods in the electronic field are also discussed.

Electromechanical Controls 1 320-298

The course introduces programmable controllers and their application to machine controls. The main thrust of the course is towards applications where sequencing is the main function of the controller. Position sensing, pressure sensing, timing and counting methods are discussed. The student will build design and program control circuits using these techniques.

Electromechanical Controls 2 320-299

This course examines the use of electromechanical devices as process controls and introduces the fundamentals of control theory. Using elements of fluid mechanics, thermodynamics and instrumentation the course discusses methods of control via applications. Programmable controllers are used to help simulate these control methods. Control hardware commonly used in industry is discussed with their applications.

Electronic Applications 328-006

This course is basically a lab course on various electronic instruments, providing the student with practical hands-on training in the calibrating application and trouble-shooting of the instruments. This accomplished by guiding the student in gleaning information from manufacturer's instruction manuals. A short section on operational amplifier theory is included as well.

Electronic Positioning Syst. 330-429

Basic theory of electronic positioning systems and the use in hydrographic industry classification of systems, wave propagation. Principle of measurements, position accuracies and calibration of systems.

Electronics Circuits & Applications 1 350-083

An introductory section on the basic concepts of electricity and current flow leads to an analysis of DC series, parallel, and series-parallel resistive circuits. The characteristics of capacitors and diodes are investigated, and the results applied to AC-DC rectifier circuits. The theory of operation of the VOM and oscilloscope are studied and these instruments are used in the laboratory.

Electronics Circuits & Applications 2 350-102

An investigation of semiconductor action leads into the theory of operation of the bipolar transistor. Transistor bias requirements and suitable bias circuits are analyzed, and the characteristics of large and small signal amplifiers are then examined in detail.

Electronics Circuits & Applications 3 350-103

This course introduces the FET family and basic audio frequency applications. The concept of feedback is introduced and coupled with the discrete differential amplifier leads into the operational amplifier, its operation and practical applications.

Electronics Circuits & Applications 4 350-104

This course covers topics in pulse shaping, switching and generating circuits, including the 555 timer and the thyristor family of industrial power control devices.

Electronics Circuits & Applications 5 350-105

This course emphasizes the applications of electronic circuits to industrial signal processing. The course deals with transducers, signal conditioning, and active filters and is primarily analog.

Electronics Circuits & Applications 6 350-106

This practical design course examines amplifier, oscillator and filter circuits used as building blocks for most transmitter and receiver circuits. The characteristics of transistors at high frequencies will be reviewed and designs will be made that achieve stable, low noise gains.

Phase lock loop circuit will be analysed in detail and practical applications of PLL in frequency synthesizers, FM detectors will be studied.

Electronics 1 328-108

This course deals with some of the major semi-conductor devices in use today. Their theory of operation is examined and their use in practical circuits is demonstrated. Labs and notes used to this end.

Electronics 2 328-208

This course introduces the basic concepts of solid state control systems as found in todays industry. The operation and application of the basic logic gates are developed and then utilized in flip flops, counters, shift registers and other typical industrial control system. Binary counting and Boolean algebra are also included to further develop an understanding and analysis of the circuits.

Throughout the course the student is taught to convert the logic circuits to conventional relay circuits, and how to utilize the Boolean algebra with relay circuits as seen in Programmable Control Systems.

Elements of Accounting 221-010

This course provides an introduction to the subject of accounting. The full accounting cycle is covered from the introduction of data to the accounting cycle through its detailed recording. Practice will be obtained in the preparation of financial statements, maintenance of subsidiary ledgers and payroll records.

The objective of the course is to give an insight into the mechanics of accounting so that the student may have an understanding for reference in business situations or as a foundation on which he may continue in advanced study of the subject of accounting.

Engineered Piping Design 320-323

This course will enable the student to size, lay out and detail piping systems for building services in accordance with applicable codes. Students will be able to select components and assemble the information as drawings and specifications for installation.

Engineering Drafting 1 330-518

Students will gain skills in basic technical drafting. The student will concentrate on linework, lettering, labelling, layout and organization, axonometric and orthographic projection, and cross-sections.

Engineering Physics 1 380-249

In this course, general laws governing wave motion and sound, light and heat are studied. This includes the relationship between the speed of a wave and the frequency and wavelength, the formation of standing waves, and resonant phenomena. The formation of shock waves is discussed, along with a treatment of sound intensity and intensity levels. Finally, the Doppler effect is described. Program entry and successful pass on Math Diagnostic test are prerequisites.

Engineering Physics 2 380-251

This course is introduced with a review of measurement units, and technical mathematics. The use of vector analysis is described. The concept of mechanical equilibrium is introduced, and used to solve problems involving translational and rotational equilibrium. Other topics include motion, Newton's laws, the force of friction, work, energy and power, andthe mechanical properties of matter. Program entry and successful pass on Math Diagnostic test are prerequisites.

Engineering Surveys 330-203

Applications of surveying methods to engineering projects with the emphasis on the analysis of the accuracy, applications of the law of propagation of errors.

Environmental Health 320-281

This course is an introduction to the recognition evaluation and control of environmental problems that infringe on the health and well being of society.

Environmental Microbiology 340-158

The objective of the course is to give the students a knowledge, both practical and theoretical, of medical microbiology including parasitology, mycology, bacteriology and virology.

Final Control Elements 328-018

This course covers the various tupes of Final Control Elements used in a closed control loop, including: control valves, dampers, fans, weighfeeders, electric heaters, and other linear and rotary drives. The student studies these devices, he assembles and disassembles several of them in the shop, and he applies a few of them

to actual control loops. He is required to prepare clear and concise reports of his findings.

Fire Protection 320-095
Effective programs must be developed to reduce the immense loss potential due to fire both in terms of human values and economic impact. Techniques for fire prevention and extinguishment are considered.

Fluid Mechanics 330-534
The student will be able to analyze the stability of water retaining structures like gravity dams, spillway gates and sluice gates. He/she will also be able to solve problems associated with ioen channel flow transition design and backwater curves. He/she will be able to explain the working principles of water turbines, centrifugal pumps and reciprocating pumps.

Fluid Mechanics 320-073
This course is to provide the student with a basic understanding of the fluid mechanics principles in general and their applications to fluid power technology in particular. It will enable the student to analyse the behaviour of fluids, determine their properties and calculate parameters of simple fluid systems using computer software.

Fluid Power Techniques 320-336
This course introduces the basic fluid power hardware such as hydraulic pumps, relief valves, cylinders (air and hydraulic) and directional control valves. The use of this equipment in industrial automation and machine control is emphasized. Through lab assignments the student will learn how to design and connect commonly used industrial control circuits.

Food Microbiology 340-127
The student will study the major microbiological and non-microbiological methods of preserving foods. Areas of study will include prevention of food spoilage; the use of moisture control, canning, irradiation, and chemicals in food preservation; and the causes and prevention of food-borne illness.

Foundations 330-533
The student will be able to design simple shallow and deep foundations and check the stability of retaining walls, cuts and embankments. He/she will be able to conduct the more sophisticated laboratory tests on soils, such as the triaxial test.

FMS Project 320-342
This project oriented course utilizes Humber's Flexible Manufacturing Cell. The students in this course will be part of a team that designs and coordinates the processes required to manufacture a product using advanced technology and automation. In this, they will rely on skills previously learned in Numerical Control, Computer Programming, CAM, Robotics and Process Planning.

FMS Project 320-341
This project oriented course utilizes Humber's Flexible Manufacturing Cell. The students in this course will be part of a team that designs and coordinates the processes required to manufacture a product using advanced technology and automation. In this, they will rely on skills previously learned in Numerical Control, Computer Programming, CAM, Robotics and Process Planning.

Gas and Diesel Motors 371-001
This course examines the components, principles of operation, selection, basic maintenance and servicing of two and four stroke cycle gasoline and diesel, small-craft motors and their ancillary equipment.

Geodesy 330-098
Basic concepts of surveys done on the curved surface of the earth, precise angular measurements and errors, reduction of distances to ref. ellipsoid, position calculation, mtm and utm projections, co-ordinate transformation, meridian convergency, precise elevations, doppler sat. positioning and gps.

Graphics Systems 350-228
This course is an introduction to the ever-expanding world of computer graphics. It covers vector and raster based graphics, vector-to-raster conversion, the programming of some common graphics displays (TEK 4010, IBM colour graphics adapter, Tecmar graphics master, number 9 graphics board, etc.) graphic data representation and manipulation, graphics entry devices and standards. Although the primary emphasis will be on programming, graphics hardware will be discussed.

H.F. Circuits 350-051
Amplitude modulation and frequency modulation are analysed, along with circuits used in AM and FM communications systems, including tuned amplifier analysis and the superheterdyne principle.

Highway Design 330-417
The student will learn to take field measurements and collect other data required for investigation into the operation of a road, highway, expressway or freeway concerning the solution of traffic problems. He/she will analyze and evaluate the data to make recommendations regarding the efficient or non-efficient operation of the facility to latest highway design practice.

✓Highway Technology 330-081
The student, using the basics of structural drafting, will produce structural drawings; plans; sections and details of wood; steel; and reinforced concrete structures for given buildings.

Highway Technology 330-490
Design and layout of horizontal and vertical alignment of roads, geometric characteristics on the basis of function, safety and traffic volume.

Hydrographic Field Applications 330-489
Applications of basic present-days hydrographic techniques associated with actual field operations such as planning, data collection, computations and positioning of sounding vehicle, using visual or electronic methods.

Hydrographic Survey 1 330-157
Basic theory of hydrography planning, horizontal and vertical control requirements, sounding datum, specifications and methods of sounding operations.

Hydrographic Survey 2 330-168
Study of radio waves, antenna and signal propagation, sonar systems, electronic and digital circuitry.

Hydronics & Steam Syst. 1 330-433
This course is intended to familiarize the student with the use of steam and hot water as heat transfer media in domestic and industrial installations. The construction, installation and operation of system components will be covered, together with the basic rules covering such installations.

Industrial Drafting & Detailing 330-543
The student will further the knowledge gained during the first semester by improving drafting, detailing and designing skills through the design of a small factory. The work will consist of presentation and working drawings, and models for a two-storey office section and a single-storey plant area, using a steel structure with masonry infill and metal windows.

Industrial Electronics 1 354-305
The course is an introduction to the characteristics and application of electronic devices such as diodes, transistors, S.C.R.'s and other devices used in the field of Industrial Electronics.

Industrial Hydraulics 320-063
This course introduces hydraulic hardware and illustrates its use in hydraulic circuits with the aim of preparing the student to identify and install, specify and select, analyse and design industrially applicable hydraulic systems.

Industrial Microbiology 340-068
Industrial Microbiology deals with all forms of microbiology which have an economic aspect. This course presents students with theory and applications in the field of industrial microbiology, particularly with reference to fermentation industries, culture maintenance and preservation, biological assay procedures, biodegradation of materials, microbiological waste stabilization, and photomicrography. The theory is supported by laboratory experiments and projects which allow the student to apply the theoretical knowledge to specific techniques.

Industrial Organic Chem. 340-164
The student will be expected to relate typical industrial reactions such as: halogenation, nitration, sulphonation, oxidation and polymerization to processes and practices in the petrochemical, agrichemical, explosives, edible oil, fragrances, detergents, plastics and pharmaceutical industries. Multi step synthesis and explanations of reaction conditions and reaction mechanisms are also required for the successful student.

Industrial Organic Chem. Lab 340-071
Preparation of important industrially important organic compounds such as insecticides, dyes, antipyretics, fragrances and polymers. Students are expected to conduct organic synthesis on a semi-pilot scale. Laboratory reports demonstrating proficiency in technical writing are an essential part of the course.

Industrial Pneumatics 320-145

This course introduces the student to the use of compressed air as a power and control medium. Students will be able to select, install and maintain industrially used pneumatic hardware and design sequencing and control circuits. Course topics include gas laws, compression of air, selection of hardware and basic circuit design. A major portion of the course is laboratory work where the student builds simple and complex simulated control circuits.

Industrial Psychology 320-013

This course will provide the student with an insight into the psychological and social aspects of the industrial organization. It will enhance his ability to perceive and apply the interrelationships of psychology and technical factors. Case studies, role-playing and group problems will introduce the student to methods of resolving organizational problems.

Industrial Security 320-276

The graduate will be able to design a program of security for industrial plants and building complexes relating all security functions of guards, fire protection, emergency and disaster plans, physical and personnel security and security of documents. Students will learn to plan for physical barriers, electronic surveillance, the overall security system, security lighting and storage of valuables.

Instrument Design Drafting 328-109

In this course the student practices drafting skills and he prepares process and instrument drawings, loop diagrams, installation detail drawings, and purchase specification documents.

Instrumentation for Chemical Processes 340-146

This course provides the student with an overview of process instruments, the theoretical principles and applications in process industries are related to pressure, temperature flow, level, humidity and some chemical properties.

Instrumentation Workshop Practices 328-002

The student will be able to work in the instrumentation shop observing the safety rules of the mechanical practices. The participant will be able to use hand and measuring tools, power tools, mechanical and electrical fitting and other associated devices, while performing instrumentation duties.

They will be making a manifold pointer puller, thermocouples and learning soldering techniques.

Intro. to Fluid Mechanics 330-526

The student will learn the principles of hydraulics and with the help of design aids and tables will be able to solve problems concerning floating objects, forces exerted by liquids, energy transfer in a flowing fluid, and calculations for pressure flow in pipes.

Intro. to Landscape Arch. 330-561

The student will be introduced to landscape design and construction by acquiring a knowledge of plant materials, the techniques of landscape construction, and the use of plant and related materials to modify the built environment.

Intro. to Mechanics 330-520

This course will introduce the student to mechanics with an emphasis on analytical problem solving. The student will gain knowledge of vectors, translational and rotational equilibrium, linear and rotational motions, work, energy and power.

Intro. to Municipal Services 330-528

The student will learn to apply the principles and techniques of hydraulics, municipal regulations, and hydrology to solve problems in channel flow, strength of buried pipes, run-off and culvert design.

Intro. to Surveying 330-556

The student will be able to perform distance measurements, angular measurements, and leveling operations for the determination of elevations, conduct field surveys for the location of permanent objects, perform basic calculations in the rectangular co-ordinate system and plot a plan of survey.

Intro. to Urban Planning 330-575

This course traces the historical evolution of the city, from primitive clusterings to ancient cities to the medieval, military, Renaissance, industrial, and modern North American models. Factors controlling the development and growth of cities will be traced in detail.

Introduction to Interior Design 330-564

This course introduces the student to the design of interior spaces. The student will investigate the planning, finishing and decoration of medium scale public and retail projects.

Introduction to Pascal 350-206

This course is an introduction to the Pascal programming language. The student will learn to write programs using the following Pascal language features--statements, simple data types, conditional and control statements, procedures and functions. The student will also learn the necessary VAX/VMS commands to create, edit, store, compile, link and execute these programs on a DEC VAX computer.

Introductory Calculus 380-228

This course consists of the following sections: graphical methods on differentiation, algebraic methods of differentiation; power, chain, product, and quotient rules, maximum and minimum problems, the integral, the substitution method of integration, and applications of calculus to electronics.

Introductory Microbiology 340-123

The student will learn the basic concepts and techniques: how to use the light microscope, prepare and stain smears, make growth media, apply the techniques of pure culture and enumerate micro-organisms.

Kinematics of Machines 320-285

This course deals with the analysis and design of simple mechanisms. The emphasis will be on practical application of fundamental principles of mechanics in the design of cams and linkages and in the dynamic analysis of drives. The principles of operation of some commonly encountered mechanisms and their suitability for various practical applications will be discussed.

Lab Instrum. Appl's. 340-063

The student will be able to properly use various instruments and carry out analytical work in chromatography (paper, gas-liquid, thin layer, electrophoresis), spectroscopy (IR, visible, UV, AA, flame photometry and nephelometry), and electrometric methods (potentiometric, voltammetric, and electrolytic). The student will be able to select the proper instrument and record and interpret data for various organic and inorganic industrial analyses.

Lab Instrumentation 340-062

The student will learn the general principles of modern physical techniques used in analytical work in chromatography, spectroscopy and electrochemistry.

Labour Relations 253-111

This course gives an introduction to: the trade unions movement; the process of collective bargaining; certification procedure; unfair labour practices; the nature of the collective agreement; grievance procedure and the process of conciliation and arbitration; strikes and lockout. The objective is to give the student a working knowledge of the parts played by management - unions - and government in labour relations.

Legal Survey Studies 1 330-493

Study of the composition and development of survey profession in Ontario, origin and structure of various township survey systems, procedures for dividing land in Ontario and step by step procedure for developing and registering a plan of subdivision. Preparation of a simple subdivision plan.

Legal Survey Studies 2 330-498

Development of systems of land registration in the province of Ontario and the related statutes such as Registry Act and the Land Titles Act. Title searches of land in various registry offices. Study of acquiring evidence for the retracement of survey fabric and evaluation and use of the evidence.

Life Cycle Costing 330-560

The student will gain skills in the financial aspects of architectural building projects. Students will be introduced to supply and demand curves, cash flow, the time value of money, the analysis of investment alternatives, and lifecycle costing techniques.

Logic 1 350-092

The goal of this course is to provide the student with the foundations of logic upon which computers and other digital systems are based. The student will learn the elements of digital hardware such as gates, flip-flops, registers, counters, display devices, machine arithmetic, and appropriate applications of Boolean algebra.

Logic 2 **350-093**

Based on the principles and integrated circuit device operations developed in Logic 1, this course carries on with the study of more complex logic systems found in such areas as digital computers, digital communications, and digital control systems. The student will learn the operations and typical uses of arithmetic circuits, coded number systems, digital multiplexing, synchronous circuit design, error detection and correction, D/A and A/D conversion, semiconductor memories, and the properties of various logic families.

Machine Design 1 (Project) **320-148**

Machine design is a subject concerned with the creation of plans for mechanisms to perform specific functions. The scope of the subject encompasses the traditional fields of mechanics, strength of materials and drafting. Consequently this course offers the application of these descriptives to particular projects within industrially accepted design practices and standards.

Machine Design 2 (CAD 2) **320-312**

This is a continuation of the course in Machine Design 1, except more sophisticated methods are used. The course is directed to the same goal as in 1, that is, to provide the student with a good training in the logical application of theory to the design of industrial products.

Machining Processes **320-266**

A basic understanding of and experience in the operation of machine tools. Also an appreciation for and the ability to distinguish between the various metal removal methods, on lathes, milling and drilling, and grinding machines. The course project will be used as a means to an end, to maximize the amount of learning.

Manufacturing Cost Estimating **320-268**

In order to prepare for estimating the expenses that are incurred in manufacturing products, the student will use the prerequisites of blueprint reading and manufacturing processes, to develop the techniques of cost estimating products manufactured by various processes such as machining (conventional and N.C.), casting, welding, stamping.

The student will learn to calculate labour and material cost for different types of estimates, will become familiar with the terminology related to estimating such as direct and indirect costs, burden rates, shop efficiencies, administrative expenses, profit margins etc.

Manufacturing Management **320-333**

Manufacturing is the cornerstone of the Canadian socio-economic scene. It is diverse, challenging and exciting. The topics covered will act as a comprehensive introduction to the manufacturing environment and a source of skills development not covered by subsequent specialized subjects. The topics are both qualitative and quantitative and will support the view that all manufacturing involves meeting quality, quantity and delivery in an economically competitive environment.

Manufacturing Process Planning 2 **320-244**

Using as prerequisites the fundamentals of process planning as laid out in the Manufacturing Process Planning 1, a series of process planning projects will be carried out. The student will be involved in processing parts of a more complex nature to be manufactured by machining, sheet metal fabrication and welding.

Manufacturing Processes 1 **320-098**

A number of basic manufacturing processes as used in the primary and secondary industries will be discussed. The processes related to the secondary industries will include: casting, machining conventional and non-conventional, pressworking, joining & surface finishing. The primary industry processes will be limited to iron and steel making methods, and brief discussion of nonferrous metals production. A leading objective is to provide information which serves as a base for evaluating the relative merits of one processing method with another. This course provides also theoretical support for the student taking machining processes.

Manufacturing Processes 2 **320-076**

This course will be concerned with the fundamentals of processes and materials used in plastic industries. Other manufacturing methods, related to the metalindustries, such as various thread and gear manufacturing will be discussed. The principles of process planning will be explained with emphasis on preparing routing and operation sheets for a given component to be manufactured.

Marina and Yacht Club Design, Construction and Operations 1 **371-119**

The emphasis of this course is a comprehensive study of the design and construction of marina and yacht club facilities under varied circumstances as well as the know-how of upgrading and modernizing of existing facilities. Included in this course are the fundamentals of site evaluation, feasibility and on-going operation of selected typical facilities. Although design theory will be covered, the emphasis will be on logical analysis rather than engineering.

Marina and Yacht Club Design, Construction and Operations 2 **371-129**

Building upon the basics of the previous semester, this course continues in development of design theory and practical application aspects as well as detailed study of various construction methods that may be employed to construct a new facility or upgrade an existing one. Problem solving on a day-to-day basis in the marina/yacht club environment is a key component. A "hands-on" design assignment is a primary component.

Marine Contracts and Insurance **371-039**

An introduction to the basics of Canadian Law, the course has been designed to emphasize the marine aspects of contracts and insurance. The development of Admiralty Law, the complicated vessel registry and licencing process, flags of convenience, liens and liability, charters, salvage, and marine insurance are all investigated. Case studies are examined and common legal jargon explained.

Materials & Methods of Const. 1 **330-541**

The student will become familiar with reference materials and sources of information pertaining to residential construction and gain understanding about soils, wood products, foundations and residential sitework. The student will also explore, through laboratory sessions, basic properties of various building materials.

Materials & Methods of Const. 2 **330-544**

The student will acquire knowledge about masonry, metals, wood and plastics products with emphasis on their properties and applications to steel frame construction. The student will also explore, through laboratory sessions, basic properties of various building materials.

Materials & Methods of Const. 3 **330-548**

The student will acquire knowledge of thermal and moisture protection, windows, doors, glass, and architectural finishes. The student will also explore, through laboratory sessions, properties of various building materials.

Materials Science **320-337**

The course introduces the various engineering materials used in the manufacturing sector, their properties and general behaviour is discussed along with capacities as they effect the performance. The effects of the environment is analysed as it influences the behaviour of the materials. Laboratory work is integral to this course.

Materials Testing 1 **330-519**

The student will be able to describe the manufacture, performance, and application of materials used in building construction. Sessions will involve the most commonly performed laboratory tests on these materials, concentrating on concrete and asphalt products. The student will as well acquire knowledge concerning the theory behind these test procedures.

Materials Testing 2 **330-525**

The student will be able to describe the manufacture, performance, and application of materials used in building construction. Session will involve the most commonly performed laboratory tests on these materials, concentrating on steel, wood and concrete. The student will as well acquire knowledge concerning the theory behind these test procedures.

Mathematics for Chem. Ty. **380-236**

This math course reviews the fundamental principles of algebra involving linear equations, formula manipulation, graphing, trig functions, systems of 2 linear equations, quadratic equations, vectors, exponential and log functions and variations. The student is expected to solve algebraic expressions and word problems de-

scribing applications and requiring accurate manual or calculator computations.

Mathematics for S-C & MT 371-046

This course in basic mathematics has been designed specifically for marine applications. It includes basic algebraic operations and functions, graphs, linear equations, determinants, quadratic equations, exponents, radicals, logarithms, geometry, vectors, and trigonometric functions. In addition, the course will provide an introduction to basic mechanics.

Mathematics 1 380-046

Fundamental concepts and operations; functions and graphs; trigonometric functions; systems of linear equations (2 equations in 2 unknowns); factoring and fractions; quadratic equatic trigonometric functions of any angle; vectors and oblique triangles; equations; exponential and logarithmic functions and variation.

The prerequisite for this course is grade 12 high school.

Mathematics 1 389-101

The following topics are covered in this course: basic algebraic operations, functions and graphs, systems of linear equations, trigonometric functions, factoring and fractions, quadratic equations, exponents and radicals, exponential and logarithmic functions.

Mathematics 1 380-183

Fundamental concepts and operations; functions and graphs; trigonometric functions; systems of linear equations (2 equations in 2 unknowns); factoring and fractions; quadratic equations; trigonometric functions of any angle; vectors and oblique triangles; exponents and radicals; exponential and logarithmic functions and variation.

Mathematics 1 330-230

Covering basic skills and applications of formula manipulation, solution of linear equations, law of exponents and trigonometry.

Mathematics 1 380-224

Fundmental concepts and operations, functions and graphs, trigonometric functions, systems of linear equations (2 equations in 2 unknowns), factoring and fractions, quadratic equations, trigonometric function of any angle, vectors and oblique triangles, exponents and radicals, exponential and logarithmic functions and variation.

Program entry and successful pass on Math Diagnostic test are prerequisites.

Mathematics 1 380-230

The student will demonstrate basic skills, and be able to properly employ them in specific applications, in trigonometry, solution of linear equations, formula manipulation, variation, solution of systems of linear equations, and the laws of exponents.

Mathematics 2 380-200

The student will gain skills in the following mathematical areas: vectors and oblique triangles, systems of linear equations, exponents, exponential and logarithmic functions, additional types of equations and systems of equations.

Mathematics 2 380-205

The students will demonstrate basic skills and be able to properly employ them in specific applications in systems of linear equations, logarithms, quadratics equations, systems of equations, trigonometric equations and analytic geometry.

Mathematics 2 380-029

This course consists of the following topics: vectors and sinusoids, complex numbersand their applications to RLC circuits; systems of three linear equations in three unknowns, determinants and matrices, quadratic equations (imaginary roots), additional types of equations and systems of equations.

Mathematics 2 389-201

This course covers graphs of trigonometric functions, trigonometric identities and equations, complex numbers (rectangular, polar and exponential forms), polar coordinates, plane analytic geometry (straight line, circle, ellipse, parabola, and hyperbola), arithmetic and geometric progression, binomial theorem.

Mathematics 3 380-201

Additional topics in trigonometry; arithmetic and geometric progressions; binomial theorem and plane analytic geometry.

Mathematics 3 (Mgmt. Appl) 380-208

Application of descriptive and inferential statistics to the solution of technical management problems. Introduction to management science (operations research) techniques including cost volume analysis, decision theory, inventory analysis, linear programming and network models.

Measuring Instruments 1 328-103

The learner in this course will understand the concepts of primary elements used in industrial process measurement and control so that he/she can be able to read ISA symbols in instrumentation diagrams, apply the basic principles of sensing in measuring pressure, flow, temperature and liquid level and calibrate, troubleshoot and repair these sensors.

Measuring Instruments 2 328-202

This course deals with electrical/electronic measuring instruments. Sufficient theory is presented so that the student may be able to calibrate, troubleshoot and repair the various instruments. Labs are used to provide practical experience and reinforce theory.

Mechanical Design & Drafting 1 320-162

The student will be able to draw pattern and machining drawings for castings; design weldments and make drawings for them using standard welding symbols; lay out sheet metal developments; and design and draw parts fabricated by machining.

Mechanical Design & Drafting 2 320-286

The student will be able to design and draw piping systems; design and draw simple structures for the support of machines; design and draw pneumatic and hydraulic cylinder systems.

Mechsnical Design & Drafting 3 320-335

The student will be able to design and draw gear and chain reduction units, and design and draw belt conveyors and components.

Mechanical Power Transmission 320-147

This course introduces the most commonly used mechanical power transmission elements. It discusses the theory and operation of belts, chains, gears, shafting, bearing shaft seals and couplings. The student in this course selects these elements based on load and performance requirements, and designs complete drives.

Mechanical Technical Drawing 320-046

The student will be able to make drawings incorporating Canadian standards for first and third angle orthographic projection, dimensioning, sectional views, screw thread symbols, welded joints, fits and tolerances, surface finishes, assembly drawings and isometric drawings.

Methods of Construction 330-532

The student will be introduced to modern methods of construction of buildings and civil engineering structures. Knowledge will be gained in excavations, framework, welds, piles, and retaining walls.

Methods of Microbiology 340-157

The student will study the basic techniques required in the identification of micro-organisms. A background in taxonomy and biochemistry will help the student to understand the principles which underlie the laboratory techniques. Areas of study include microbial nutrition, energy transformations, microbial ecology and rapid methods for the identification of micro-organisms.

Methods Analysis 320-303

The purpose of this course is to provide the student with the methods and procedures required for increasing productivity. It is structured for students who have already successfully completed Time Study, Motion Study and Communications 2 and is regarded as a "professional course" by the I.E. group.

Metrology 320-267

The student will be able to perform measurements using gauges and instruments to determine and check dimensions. Theory is mixed with practice to provide the fundamentals of dimensional metrology. Inch and metric systems will be used while the inch system phases out.

Micro Processor Development Systems 350-221

This course deals with a detailed study of microcomputer structures, hosted software development and simulation, software-hardware integration, and in-circuit emulation. Upon completion of the course, the student shall be able to implement 8085 and 8086 microprocessor-based systems to meet specified software and hardware criteria.

Microbial Ecology 340-128

Students will acquire an understanding of the various groups of

micro-organisms from the point of view of their form, reproduction, classification and particularly their roles in nature and industry.

Microbial Genetics 340-148

Genetics, the science of heredity, is the study of what genes are, how they carry information, how they are replicated and passed between organisms. This course presents students with a theoretical background of classical microbial genetics and for the advances in biotechnology often referred to as "genetic engineering". The theory is supported by laboratory experiments which allows the student to develop the basic manipulative techniques used in the application of microbial genetics.

Microcomputer Systems 1 350-179

This course deals with the fundamentals of microprocessor hardware, programming, and interfacing. The student will learn the architecture of the 8085 microprocessor, standard interfacing techniques, and the structure of a typical 8085-based single board microcomputer. He/she will be able to interface the microcomputer to the outside world through programmable I/O devices, and develop appropriate software to perform simple processing and I/O operations. In addition, the student will acquire a general knowledge of other microprocessors.

Microcomputer Systems 2 350-180

The emphasis in this course is placed on microprocessor software development skills. In the first part of the course the student will learn the steps of an 8-bit microprocessor assembly language programming using cross-software tools in the VAX/FMS operating system environment. In the second part of the course these skills will be expanded to utilize the resources of the CP/M operating system.

Microcomputer Systems 3 350-181

Based on two previous courses, this course carries on with a detailed study of microcomputer structures, hosted software development and simulation, software-hardware integration, and in-circuit emulation. By the end of the course, the student shall be able to design microprocessor-based systems to meet specified software and hardware criteria.

Microprocesaor Control 1 320-270

This course will provide the student with a basic knowledge of microprocessor hardware, programming and interfacing, using the INTEL 8085 microprocessor. The student will be able to understand the terminology, interface an 8085 based single board microcomputer to the outside world through programmable input-output devices, and develop appropriate software to perform simple I/O operations and processing. The student will acquire some exposure to other microprocessor systems.

Microwave Techniques 350-186

This course introduces the student to the principles and rather unique techniques of microwaves and provides insight into various practical aspects of microwave energy. Selection of suitable waveguides, matching of discontinuities and design of quarter-wave transformers are also included. In selected laboratory experiments the student shall make slotted line and swept-frequency measurements to realize the broad utilization of mechanical, electrical, and electronic technology in this field.

Momentum & Heat Transfer 340-161

Students will learn the basic principles of momentum and heat transfers. The transportation of materials especially fluids is emphasized. The industrial applications of heating and cooling are stressed.

Motors & Controls 350-184

After a brief introduction to the general concepts of electrical power distribution the student will analyse the principles of mechanical forces exerted by static and dynamic magnetic fields. The student will then study DC and AC-motors as applications of these forces. The student will analyse typical DC/AC motors and their control circuits in selected laboratory experiments.

Municipal Services 330-535

Skills acquired in "Intro. to Municipal Services" will be developed in more detail.

Navigation 371-036

This course acts as an introduction to the basics of coastal navigation. Students will become acquainted with accepted marine principles of tide calculation, position and direction, plotting techniques and passage planning. In addition, students will learn Radio-Telephone techniques and take the Ministry of Communication examination. The course culminates with the Canadian Yachting Association Coastal Navigation exam.

Navigation, Charts and Pilotage 330-159

Federal and Provincial boating regulations, boating terminology, chartwork, and coastal navigation practices, safety and the responsibility of a navigator and aids to navigation.

Numerical Control 1 320-015

The student will become able to prepare a manual program for turning, milling, punching, etc. The student will prepare manual programs, punch and debug them, and successfully run them on the shop's C.N.C. equipment.

Numerical Control 2 320-293

The student will become able to prepare a computer assisted program, obtain printout, debug-program, punch tape and successfully run tape on existing systems.

Occupational Health (Chemical Agents) 320-221

This course is an introduction to the fundamentals of Occupational Health. The course covers the recognition, evaluation and control of health hazards in a working environment using toxic substances and dusts.

Occupational Health (Physical Agents) 320-222

This course represents an introduction to the fundamentals of occupational health. The recognition, evaluation and control of health hazards in the working environment involving physical agents such as noise, vibration, heat/cold, light, ionizing radiation and non-ionizing radiation, are studied.

Oceanography and Meteorology 330-500

Fundamentals of physical oceanography and meteorology. Propagation of light and sound ocean atmosphere interactions, ocean circulation, winds, currents, waves and effects on navigation, plate tectonics, weather forecasting.

Operating Systems 1 350-219

This course is an introduction to a single user disk operating system. It covers basic operating systems components such as bootstraps, system kernals, resident and non-resident overlays, system configurations, disk file structures, and interrupt and device drivers. The student will use the Microsoft MS-DOS operating systems as an example of a popular single user operating system. Special attention will be paid to writing customized device drivers.

Operating Systems 2 350-225

This course is a continuation of Operating Systems 1 and focuses on the principles, theory and features of multi-tasking, virtual memory operating systems. Particular attention will be paid to the basic concepts of asynchronous concurrent processes, concurrent programming and the 'dead-lock' problem. The operating systems studied include UNIX and VAX-VMS.

Operations Research 320-090

The introduction of important conceptual ideas of operations research, which are both fundamental and long lasting, will provide the student with enough understanding and confidence to appreciate the strengths and inherent limitations of the operations research approach. As a result, models will be established for the recurring tactical problems of operations research. These models will provide the opportunity for students to derive quantitative solutions.

Opto-Electronics 350-150

In this practitioner course you first must re-familiarize yourself with the concepts and principles of electromagnetic waves, linear and non-linear optics. Then you learn to rephrase these laws as they apply to opto-electronic components such as lasers, photodetectors, LED's and Fibre-Guides. Following strict safety rules you will operate a Helium/Neon-Laser, and extract its optical performance data. Finally, you employ the laser and most of the other components in typical communication and data processing applications.

Organic Chemistry 1 Lab 340-056

An introduction to organic laboratory techniques, including simple distillation, steam distillation, liquid-liquid extraction and recrystallization. Students will also perform identification tests and organic syntheses.

Organic Chemistry 1 Lecture 340-055

A study of nomenclature, preparation, reactions, and uses of aliphatic hydrocarbons and aromatic hydrocarbons. This course

will include preparation of organic compounds and analysis of organic compounds.

Organic Chemistry 2 Lab 340-061

Students will conduct experiments on aromatic compounds, synthesize organic compounds, including pharmaceuticals, polymers and detergents.

Organic Chemistry 2 Lecture 340-155

A study of the chemistry of aliphatic and aromatic compounds and organic reactions in terms of functional groups. This course covers benzene and aromaticity, phenols, ethers, carboxylic acids and derivatives of carboxylic acids, aldehydes and ketones, and an introduction to stereochemistry.

Outboard Engines & Marine Drive Trains 371-213

A primarily hands-on course, using live engines which will involve students in the disassembly, repair and re-assembly of outboard motors. The course will also provide students with an opportunity to use parts and service manuals, apply shop safety principles, and test and tune outboards.

Peripherals 350-223

This course discusses a variety of computer peripherals - magnetic tape drives, floppy and hard disk drives, video display terminals and video monitors, and the programming required to operate them.Serial and parallel interfaces and representative computer buses (Multibus and Unibus) will also be included.

Photogrammetry 1 330-383

Aerial cameras, geometry of vertical and titled photos, geometry of stereoscopic pairs of photos, flight planning, mosaics, stereo plotting instruments, orthophotography.

Photogrammetry 2 330-495

Stereo plotting instruments, inner relative absolute orientation, map compilation, map updating.

Physical Chemistry 340-150

The student will learn to solve problems through application of the principles of physical chemistry: the gas laws, acid-base equilibria, spectra and the first law of thermodynamics.

Physics for Chem. Ty. 380-237

This course is designed to give the student an understanding of simple harmonic motions and the nature of heat and light. Topics studied include simple harmonic motion, temperature and expansion, quantity of heat, heat transfer, thermal properties of matter, thermodynamics, refection and mirrors, refraction, lenses and optical instruments, polarization, diffraction, interference and the nature of light. Analytical problem solving will be emphasized. Laboratory work also forms an important part of this course.

Physics 1 389-104

An introduction to mechanics covering the following: vector mechanics, translational and rotational equilibrium, accelerated motion, Newton's second law of motion, work energy and power, impulse and momentum, rotation of rigid bodies, simple machines, elasticity, fluids at rest, fluids in motion, analytical problem solving will be emphasized.

Physics 2 389-204

It is designed to provide a basic understanding of simple harmonic motion and the nature of heat and light. The following topics are covered: simple harmonic motion; temperature and expansion, quantity of heat, heat transfer, thermal properties of matter, thermodynamics, reflection and mirrors, refraction, lenses and optical instruments, interference, diffraction and polarization. Emphasis is on problem solving.

Plant Layout 320-224

This advanced course, emphasizing economic realism, will enable the student to specify production facility and capacity requirements for a multi-product manufacturing plant of about $2,000,000/yr. He/she will integrate material handling, warehouse, inventory and material control to produce an optimum layout design, then redesign to suit a new product mix.

Pneumatic Instruments 328-004

This is a course to introduce the student to the principle of pneumatic instruments and air supplies. The student will be able to understand the operations of sensors, transmitters, receivers, positioners, acuators and controllers associated with pneumatic instruments. The participant will be able to disassemble, assemble, align and calibrate pneumatic instruments to meet the standards of the manufacturers and the ISA.

Polymers & Composites 340-165

This course examines, in both a theoretical and practical context, the electrical, mechanical and thermal properties of common thermoplastics and thermosetting resins and composite materials derived from these resins.

Power Systems 354-407

A descriptive course in power generation, transmission and distribution in utility, industrial and commercial systems. Common power circuits are described and switching schemes given. Hazards to system operation are named and methods of protection given. System components are enumerated and students are required to identify them visually as well as describing their principles of operation. Ratings of major apparatus are explained. The course is a first level presentation of the technical problems and practices associated with energy handling in power systems large and small.

Practical Photogrammetry 330-128

The following topics will be studied: review of inner, relative and absolute orientation; extensive practice in the set-up of stereo models on a variety of instruments; the use of stereo plotting instruments in the compilation of asted planimetric and topographic maps; practice in the measurement of plates on a stereocomparator for analytical triangulation.

Princ. of Process Control 340-147

This course introduces the student to the concepts of control theory. Stability criteria are analysed using BODE-diagrams. The operating characteristics of different types of controls are discussed. Components of pneumatic and electric systems are described and compared. Valves and valve actuators are discussed. The CV factor is calculated and used for sizing valves to meet design specifications. The theory is supported by laboratory experiments.

Principles of TV 350-175

The television course examines the signals and waveforms of the NTSC black and white and colour service. The student will follow these signals through the chassis of a modern TV receiver and will explain the operation of each circuit encountered.

The student will be shown how to make a colour set-up by use of a colour bar generator. Video games will be described in terms of how numbers and moving dots are generated on the CRT. Conversion of a B & W TV receiver to a computer monitor and interface to the computer will be discussed. Potential hazards in TV service work will be discussed. They include electric shock, CRT implosion and X-ray radiation.

Problem Solving with Pascal 350-234

This course is a continuation of Introduction to Pascal. It covers a number of advanced topics of the Pascal language-arrays, records, files, sets, and pointers, and introduces the student to a methodical approach to problem solving using top-down structured design.

Product & Public Safety 320-171

The consumer, the worker, and those in the community are becoming more informed and aggressive in demanding that goods and services shall not injure or present a hazard to health. As liability and legislative regulations increase, it is becoming essential to evaluate systems for potential hazards so that effective control programs may be implemented. In the design of systems or activities, human factor considerations (ergonomics) can improve performance and reduce errors.

Production & Inventory Control 320-092

In this course students learn to specify techniques necessary to synchronize the work of those concerned with production; to provide procedures for forecasting the required plant output, raw material flow, equipment and labour scheduling through the stages of manufacturing; to determine warehouse levels and order quantities to maintain low costs, meet delivery dates and assume the highest quality with the minimum of capital investment.

Programmable Logic Controllers 328-402

The course is designed to introduce the student to programmable logic controllers. The student will be able to recognize and understand the functions the controllers perform. Prepare logic flow diagrams and ladder networks. Design and implement simple programs in various controllers.

Programming Languages 350-210

In this course students will intensively study two programming

languages that are currently being used in the industry - FORTRAN and C. The student will write programs in both languages using the following language features--data types, conditional and control statements, terminal and file I/O, subroutines and functions, storage overlays and compiler options. Particular attention will be paid to the concept of "machine dependent" and "machine independent" code.

Project Management 320-091

Training students in planning and controlling non-repetitive projects using the techniques of PERT, CPM and their derivatives is the objective of this course. The student will be taught to formulate an effective project plan and schedule, and methods of controlling the direction of the project to successful completion after the project has begun.

Psychrometrics 320-251

The analysis of air conditioning processes, specification and designing systems using a psychrometric chart as a tool will be the aim of the course. It also prepares the student for more advanced studies of equipment selection, commercial and residential systems.

PC Based Systems 350-240

This course starts by studying the architecture and programming of a typical 8-bit microcomputer (Intel 8085) used in the Intel SDK-85 single board computer system. This is followed by an introduction to a typical small computer system such as the IBM PC or PC compatible. Programs for the PC will be written in (Microsoft) macro-assembler, and use either DOS calls, BIOS calls, or direct access to control keyboard input, screen output, and I/O.

Quality Control 320-296

The student upon completion of the course will be able to use fundamental concepts of probability and statistical process control. The student will also be able to use various quality concepts and techniques such as inspection and test Paretto analysis, cause and effect (fish bone) diagrams, patterns of variation, and non-conforming material disposition. The student will also be able to apply various reliability analysis and test techniques.

The course is designed for those students who have successfully completed Statistics and Metrology.

Quantity Surveying & Estimating 330-569

This course examines the principles and practice of measuring the quantities of materials required to construct a building and preparing a cost estimate for the same.

Quantity Surveying & Estimating (Comparative) 330-572

This course places particular emphasis on computer applications in construction estimating. The student will review various types of pre-construction estimates and apply them to a construction project. The student will further his/her knowledge of construction costs by performing a detailed analysis of several types of construction systems.

Real Time Systems 1 350-247

This course covers the software aspect of real time systems. It emphasizes the connection between the controlling software, the real time operating system, and the time dependency of the controlled hardware. Application programs controlling several devices will be written in C to run under a real time multi-tasking operating system - the QNX system. In addition, part of the course will cover some of the fundamentals of control systems.

Refrigeration 1 320-020

Study of the basic principles of thermodynamics and their application to the refrigeration system. The course also deals with the purpose and operation of the various component parts used in the system in preparation for a more detailed study in Refrigeration 2.

Refrigeration 2 320-021

The application of fundamentals learned in Refrigeration 1 to more complex systems and an in-depth study of equipment and component parts including their correct sizing and application. The course also encompasses the operation and characteristics of centrifugal and absorption systems.

Refrigeration 3 320-318

This course involves the calculation of heat gain for commercial high, medium and low temperature refrigeration applications. The course will also include the design, drawings of the appropriate refrigeration equipment and the proper selection and sizing of the equipment.

Rendering 330-559

Students will gain knowledge and skills in the use of colour for architectural presentation, both for elevational and perspective treatment. Emphasis will be on the use of the "coloured pencil" and "marker pen" techniques.

Residential Drafting & Detailing 330-539

The student will acquire fundamental skills in working drawing techniques, and code and regulation requirements through the preparation of working drawings and details for a series of small projects. Emphasis will be on wood frame and brick veneer construction.

Residential Systems 330-430

The student will be able to size, select and specify residential forced air heating equipment. Gas, oil and electric energy systems are compared with respect to their designs, rating, components, control requirements and installation. The effect of national and local building codes on the selection of equipment is studied.

Robotics & Automation Systems 320-308

Automation is the technology concerned with the application of complex mechanical, electronic, and computer based systems in the operation and control of production. In this course various methods of automation are studied and mainly concerned with Numerical Control, part insertion, assembly and material handling in these situations.

Laboratory work including simulation and robotic programming is an integral part of this course.

Sailing School Charter Fleet Operations and Yacht Brokerage 371-037

In three parts, this course examines the organizational and operational aspects of running a sailing school, investigates the mechanics of a charter fleet operation and yacht delivery and will provide an overview of yacht brokerage.

Sails & Rigging 371-009

This course is an introduction to the fundamentals of traditional and contemporary yacht rigs and sails. The course will deal with the basic concepts of engineering applied to masts, rigging and related hardware. Students will become acquainted with the theory of how sails work, basic sail design, materials and construction.

Sanitary Technology 330-053

By applying the principles of hydraulics and basic chemistry, the student will be able to specify the methods of collection, treatment and distribution of water supply to a community. He/she will be able to describe the methods of collecting, treating, and disposal of waste water, and be able to identify and apply pollution control regulations, as applicable to Ontario.

Seamanship 1 Power & Sail 371-117

A basic course, this on-the-water program is designed to acquaint the student with the handling characteristics of small sail and power vessels in varying confined and lake conditions. The sailboat portion provides instruction to the Canadian Yachting Association White Sail Level 2.

Seamanship 2 371-217

This course is designed to provide the student with practical experience handling larger yachts, under sail and power. The sailboat portion provides instructions to the Canadian Yachting Association Basic Cruising Standards.

Site Management 330-538

The student will study relationships between owner, engineer and contractor. The roles of various personnel involved in the construction management process will be examined. Methods of site management, will be studied including administration, contracts, cost control, project scheduling, inspections and jurisdiction, final takeover and guarantees.

Small Craft Electronics 371-218

A basic introduction to the hardware of small craft electronics, emphasizing the sale, installation and maintenance of such hardware in a marina and yacht club environment.

Software Project 350-246

This course gives the students a hands-on experience of working on 'real world' software projects. The student will design, implement and document the project. The concept of top down design and testing are emphasized. Students taking this course should have successfully completed Algorithms and Data Structure 1. There will be two projects in the semester that will involve the use of selected Run-Time Library procedures and System Services, and standard file types supported by VAX RMS. The students have to

meet in class participation in the following activities.

Soil Mechanics 330-529
On completion of this course in the fundamentals and basic principles of soil mechanics, the student will be able to assist in routine laboratory and site testing of soils for its application in the construction industry.

Solid State HVAC Controls 330-436
This course provides the student with basic electronic technology used in control systems. This will include the operation and use of transistors and diodes. Various circuits including power supplies and amplifiers will be studied.

Specifications & Estimating 330-557
The student will gain skills in cost estimating and control, and the reading, interpretation and application of building specifications for both small scale and large scale building projects.

Standard Operating Procedures & Office Routine 371-121
This course encompasses basic bookkeeping and accounting practises as well as standard operations which are essential in the modern small business. Personal and corporate income tax calculations are examined.

Statics 320-001
This course is primarily a problem solving course which prepares the student for more advanced and specialized courses requiring a general knowledge of equilibrium. It provides the student with an approach and a method of analysis of practical systems. Emphasis will be placed on physical problems which will require an elementary knowledge of our physical world.

Statistics 380-220
This course introduces the student to many of the important statistical concepts and procedures necessary to evaluate data and to make better decisions associated with chemical experiments. The course is divided into descriptive statistics, sampling theory and practice, and changes and forecasting.

Statistics 380-182
This is a first level course in statistics. The student will be able to: calculate the measures of central tendency and the measures of central tendency and the measures of variation; construction frequency distributions and their pictorial presentations; perform probability calculations on normal distributions, binomial distributions, poisson distributions and sampling distributions; construct confidence intervals; and perform the various methods available for curve fitting.

Statistics & Matrix Algebra 330-231
Matrix addition and subtraction, scalar multiplication, matrix multiplication and inversion, determinants, measure of central tendency and variation, normal distribution, sampling distribution and least squares.

Stoichiometry 340-149
By mastering the basic principles of chemical stoichiometry, the student will be able to logically analyse and solve chemical problems and to understand the chemical principles letter.

Stress and Structural Analysis 330-536
The student will gain skills in simple structural components under axial load and combined bending, stress effects and deformations. Indeterminate structures will be studied as well.

Structural Design & Drafting/CADD 330-537
The student will develop skills in the design of simple structures in timber, steel and reinforced concrete and prepare working drawings for their construction. The student will be introduced to Computer Aided Drafting and Design to assist in the drawings.

Structural Drafting 330-521
The student will gain skills enabling him/her to draft structural layouts used for working drawings in steel and timber. Concrete layouts will be confined to footing and retaining wall details.

Structural Drafting/CADD 330-583
The student will develop skills in the design of simple structures in timber, steel and reinforced concrete and prepare working drawings for their construction. The student will use CADD to assist in the drawings.

Survey Camp 1 (Spring) 330-012
A two week period of intensive practical work in field covering miscellaneous survey projects.

Survey Camp 2 330-099
Two weeks of field work on surveying projects that may require longer periods of concentrated effort. Project may involve precise levelling with the use of planparallel plate and use of high technology equipment.

Survey Computations 1 330-486
Introduction to basic survey computations and applications of trigonometry; rectangular co-ordinate system, azimuth, bearing, latitudes, departures and misclosures.

Survey Computations 2 330-487
Use of co-ordinate geometry applied to survey problems, intersection of lines, line and a circle, intersection of 2 circles, area, trav. tied into position and azimuth control, use of gogo programming package.

Survey CADD 1 330-585
The student will gain skills in Computer Aided Drafting and Design using AutoCad software on microcomputers.

Survey Drawing 1 330-425
Freehand lettering and sketching, use of leroy equipment for mechanical lettering, line work and simple plan of survey.

Survey Drawing 2 330-426
Continuation of Surv. Drawing 1. Drafting of various survey plans from field notes of actual surveys and performing of necessary calculations.

Survey 2 330-039
The student will be able to operate an optical theodolite and an automatic and tilting level, determine trigonometric evaluations, do the stadia surveys, survey the profile and cross sections, draw the plan of location surveys and stadia topography. Students will be able to perform calculations related to the above mentioned surveys.

Surveying 1 330-409
The student will be able to measure distances with a steel ribbon tape, use the engineer's transit to measure angle by repetition method, use the dumpy level to determine differences in elevation, locate permanent features on the earth's surface with respect to traverse lines, use the method of spot levelling to determine elevations of selected points and do the calculations related to the above.

Surveying 1 330-038
Study of basic principles of plane surveying, distance measurements, use of theodolite, use of level, traverse, spot elevations.

Surveying 2 330-522
The student will be able to operate an optical theodolite and an automatic and tilting level, determine trigometric elevations, do stadia surveys, survey profile and cross sections, draw plan of location surveys and stadia topography, as well as perform calcualtions related to the above.

Switching and Interface Circuits 350-243
This course introduces the basic principles of semi-conductor devices such as diodes and transistors, and their operation in discrete amplifiers and operational amplifiers. The application of these devices to rectifying, switching and computer interfacing circuits is emphasized along with calculations on simple AC circuits and the proper operation of the oscilliscope.

Systems and Procedures 320-072
The objective of this course is to develop in the student, the ability, to analyse, (re)design and implement typical industrial and business systems using the formal procedures of systems analysis and design.

More specifically, the student will be taught the traditional system life cycle, and learn to use the system analyst's tools and techniques within this context.

Systems Analysis 350-216
Systems Analysis refers to the investigation, analysis, design, installation and evaluation of computer systems and applications software. In this course the student will learn to use some of the standard tools of systems analysis and their applications to real world systems such as manufacturing and factory automation systems. Part of the course will cover an introduction to databases and the design of a relational database with properly normalized relations using the VAX based Oracle DBMS (and the PC based DB 3 if time permits).

Technical Project 350-153
In this course you are to select and complete a suitable technical project. It could involve the design of hardware or software or an indepth study of some electronics or associated topic.

In your project work you are to contain or clearly show the five elements forming the frame of a good technical project: comprehension, application, analysis, synthesis, and evaluation of the topic material.

Technical Project 330-091

Using theoretical knowledge, and practical skills gained during the course of study students plan, execute, and present a survey project of large extent.

Technical Report 340-144

The students will initiate, research, prepare, write up, type and present a 4,000 to 5,000 word report relating to a predetermined topic in their field.

Techniques of Design 350-232

This course will acquaint students with the steps and skills required to design electronic equipment for mass production. The designs will use both discrete and integrated circuit components. Component costs and tolerances will be considered.

The course emphasizes the design of linear and switching power supplies, linear and switching power amplifiers, heat sink calculation and selection and the application of power transistors.

The scope of studies includes development of design equations from first principles and verification of those equations by building prototype models and extensive evaluation laboratory tests.

Telecommunication Systems 350-183

The operation and characteristics of the analog telephone system are investigated, along with FDM systems, narrow and broadband operation of transmission lines, cable types, and low speed asynchronous modems.

Thermodynamics 320-317

This course provides the student with a fundamental knowledge of thermodynamic principles and laws from the macroscopic viewpoint. The course enables the student to gain an understanding of energy and energy transformations as formulated by the first and second law of thermodynamics.

Thermodynamics 320-272

This course provides the student with a fundamental knowledge of thermodynamic principles and laws from the macroscopic viewpoint. The course enables the student to gain an understanding of energy and energy transformations as formulated by the first and second law of thermodynamics.

Tidal & Current Studies 330-501

Basic concepts of tide producing forces, tidal analysis and prediction, meteorological and other non tidal influences, datums and vertical control.

Time Study 1 320-295

To introduce industrial engineering, describe its place in the business world, and give an overview of its functional areas. To introduce the concept of productivity, and train the student in the techniques of methods engineering as a means of increasing productivity. To introduce the principles of work measurement and train the student in one such technique, time study.

Tool & Fixture Design 320-218

This course is aimed at enabling the student to understand what tool design is and its place in industry. Procedures of blueprint reading for tool design purposes, tool drafting vs. other drafting techniques, view selection rules for dimensioning and tolerancing will be discussed. The student will be involved in practical design activity for most of the time by working on such projects as: single point and form cutting tools, template and gage design clamping and holding fixtures.

Total Loss Control 320-037

Health and safety problems represent a loss of people in the workplace, on the highway, in their homes and at recreation. Cost effective programs can be developed that reduce these problems and provide an improved quality of life in our society.

Transportation Planning 330-059

The student will be able to perform as a member of the Transportation Planning Group in the capacity of a junior member by being able to collect traffic, density, economic activity and the related data, assist in their analysis and preparation for computer input as well as being able to prepare drawings, graphs, charts, etc.

Troubleshooting 350-016

The emphasis of this course is on allowing the student to develop reliable troubleshooting procedures necessary for the rapid repair of analog or digital prototype or failed equipment encountered in the field.

The student will learn to select and use the appropriate test equipment, to effectively locate faults in discrete and integrated circuit analog and digital equipment.

Video Systems 350-151

The operation and interconnection of major units in a closed circuit video system are examined, along with the use of standard video test signals to check the performance of such a system. The characteristics of the television signal are analysed and signal processing and distribution in CATV systems is investigated.

VAX/VMS Systems Operation 350-249

This course deals with the management of the VAX/VMS operating system software and application software running under VMS. The topics covered include managing the user environment, command procedures, queues, RMS file types and RMS file utilities.

Yacht Design 1 371-108

This course will enable the student to be conversant in the language of the small craft designer and boatbuilder. This course will also teach the student to identify and explain hull types and propulsion devices used in small craft. This course will teach the student to understand and interpret lines drawings, prepare sketches and to practice drawing lines of small craft to scale.

Yacht Design 2 371-208

This course will enable the student to understand and explain the relationship between people and boats. The course will teach the student why boats float and explain how boats move through the water. The course will require the successful student to draw a set of lines and construct a half model of a small craft to scale.

Yacht Maintenance & Repair 1 371-150

The object of this course is basic hands-on experience in the repair and maintenance of small craft built of various materials. The course will enable the student to identify and apply safety rules and identify and safely operate hand and power tools. The course will help the successful student to identify materials and fasteners and explain their uses and application in repair and building of small craft. The course will teach the student to identify, explain and practice maintenance and repair on small craft built of fibreglass, reinforced pastic, wood and metal.

Yacht Maintenance & Repair 2 371-250

The course will impress upon the student to apply shop and personal safety rules and to be able to identify and safely operate hand and power tools. The course will require the successful student to be able to practice and develop his-/her hands-on experience and skills in the repair and maintenance techniques on fiberglass reinforced plastic, wood and metal small craft.

The course will help the student to select, prepare for and apply paints, varnishand other protective coatings.

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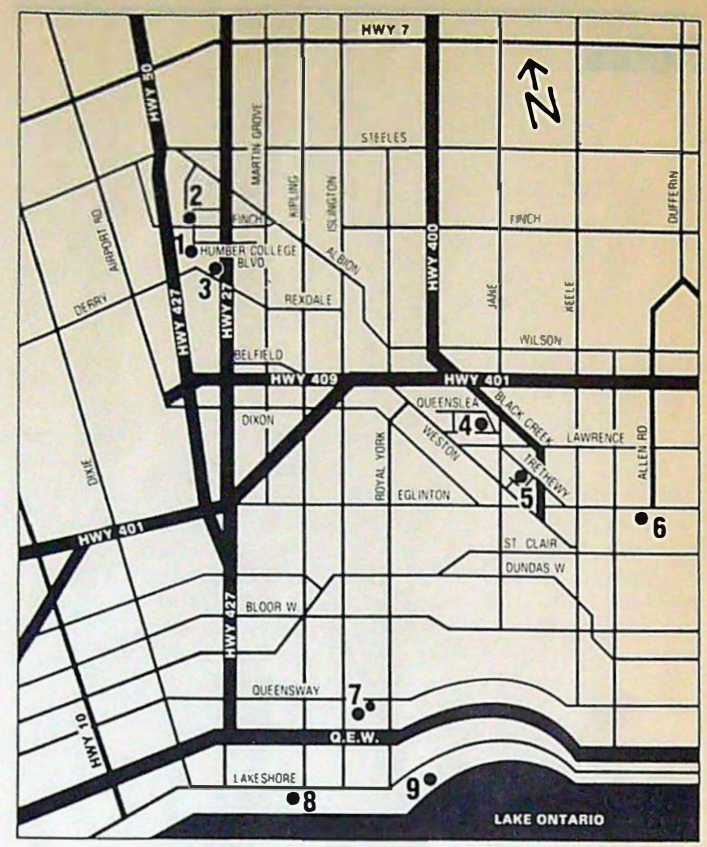
Campus Locations

North Campus

Athletics	675-5097
Campus Store	675-5044
CL Registration Part-Time Information	675-5005
Counselling	675-5090
Financial Aids Office	675-5001
Housing Information	675-5053
Futures (upgrading and training on the job program)	252-9441 ext. 201
Placement	675-5028
Registrar's Office Full-Time Information	675-5000
Secondary School Liaison	675-3111 ext. 4048

Humber Tower	**675-5014**
Keelesdale Campus	**763-5141**
Lakeshore Campus	**252-5571**
Osler Campus	**249-8301**
Queensway A & B Campus Techical Short Programs	**252-9441**
York-Eglinton Campus	**763-5141**
Woodbine Centre	**675-5078**



1 North Campus
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2 Humber Tower
6700 Finch Ave. W.,
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3 Woodbine Centre
500 Rexdale Blvd.,
Etobicoke, Ont. M9W 1S2

4 Osler Campus
5 Queenslea Avenue,
Weston, Ont. M9N 2K8

5 Keelesdale Campus
88 Industry Street,
Toronto, Ont. M6M 4L8

6 York-Eglinton Centre
1669 Eglinton Ave. W.,
Toronto, Ont. M6E 2H4

7 Queensway A
56 Queen Elizabeth Blvd.,
Toronto, Ont. M8Z 1M1

Queensway B
70 Queen Elizabeth Blvd.,
Toronto, Ont. M8Z 1M3

8 Lakeshore Campus
3199 Lakeshore Blvd. W.,
Toronto, Ont. M8V 1K8

9 Sailing Centre
Humber Bay Park West
Lakeshore Blvd.

Notes

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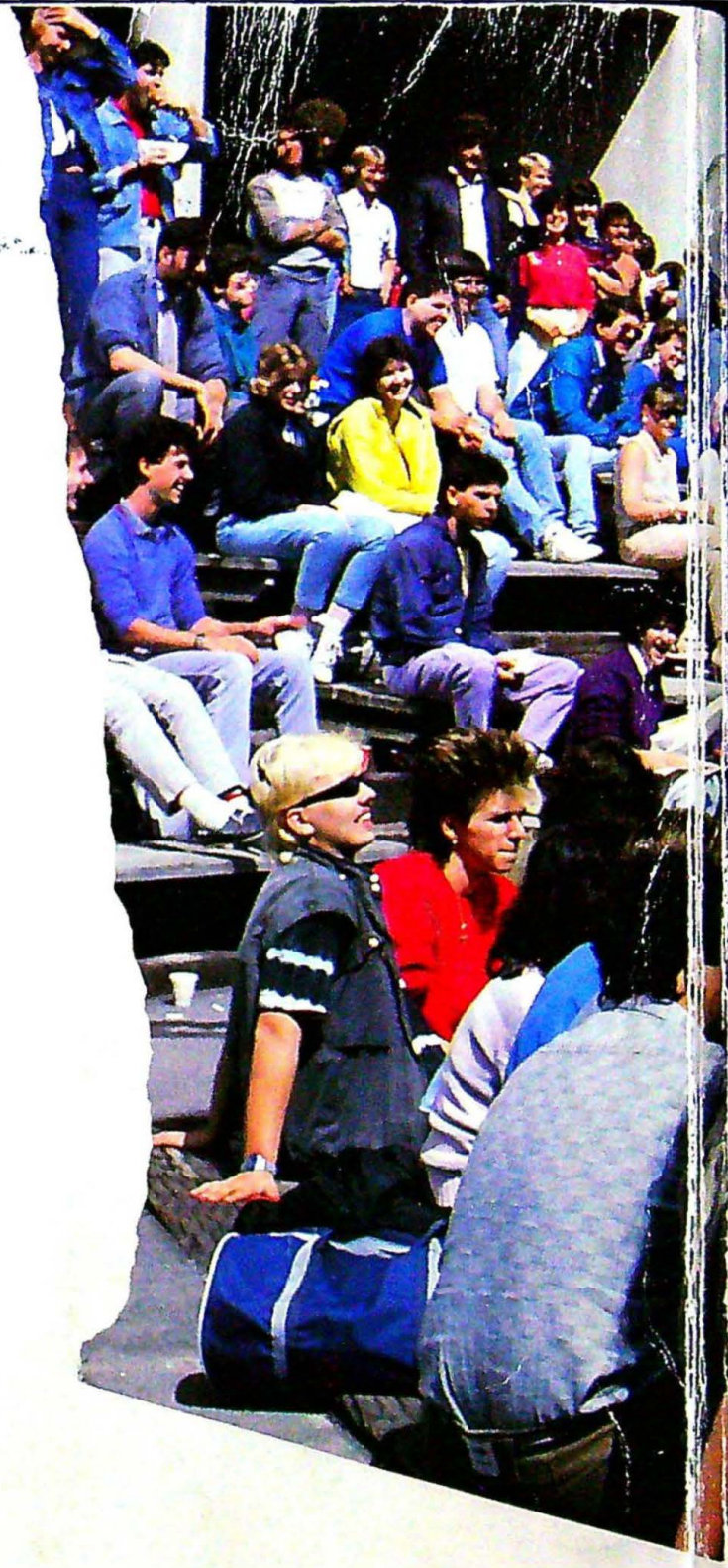
Declaration of Waiver

The information in this calendar is accurate as of August 1, 1987. The College does its best to up-date calendar information regularly so that students are not inconvenienced. However on occasion, changes do occur. Therefore, after August 1, 1987, the College reserves the right to modify or cancel any program, option, course, program objective, fee, timetable or campus location without notice or prejudice. It is also the College's right to schedule classes any time, Monday through Saturday. Students should be aware that it may be necessary for them to take a course or courses during the evening or on Saturday.



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