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HUMBER

CALENDAR



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**HUMBER COLLEGE
OF APPLIED
ARTS AND
TECHNOLOGY**

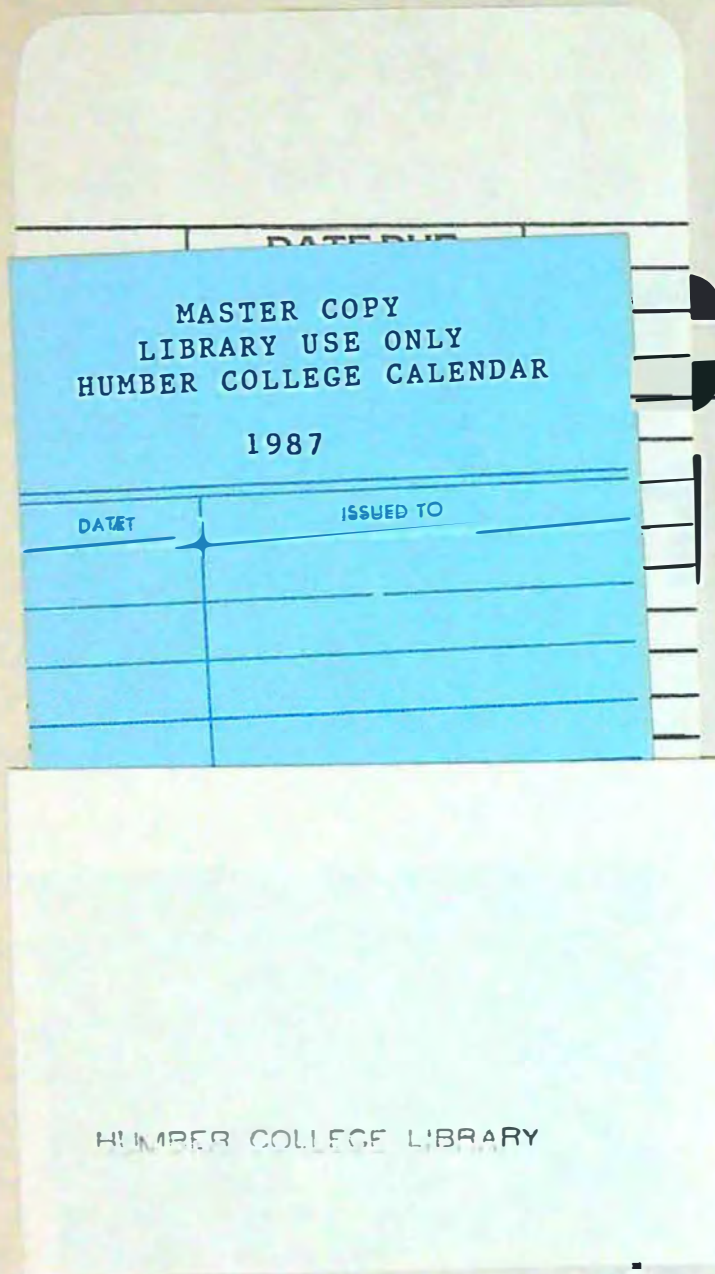
CALENDAR FOR
ALL POST-SECONDARY
AND SHORT PROGRAMS
1987

Declaration of Waiver

The information in this calendar is accurate as of August 1, 1986. The College does its best to up-date calendar information regularly so that student are not inconvenienced.

However on occasion, change do occur. Therefore, after August 1, 1986, the College reserve 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' right to schedule class e any time, Monday through Saturday. Student should be aware that it may be necessary for them to take a course or course during the evening or on Saturday.

HUMBER COLLEGE



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CALENDAR 1987

For more information on Humber
please see your guidance
counsellor or call our Information
Centre at 675-5000. Out of town
call collect at 675-5092.

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Admissions Information

As one of Canada's largest community colleges, Humber offers 125 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.

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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 for the completion of programs that have a duration of at least two years and that require a high school graduation diploma or equivalent as the basic academic admissions requirement. Certain of these programs have additional admissions requirements that have been deemed to be essential to succeed in the program. These may include specific high school course requirements up to the year 4 level, demonstrated personal competencies, or voluntary work experiences that may be useful predictors of valid career planning decisions. As these vary from program to program, you should refer to the specific Admissions Requirements sections included with each program.

Because we receive more than 20,000 applications each year for freshman positions in our diploma programs, it is important for you to respect all admission deadlines. In several popular programs, a missed deadline could mean your place will be offered to someone else. We do keep waiting lists, but this is not a guarantee of admission.

Applicants should be aware that some programs have mandatory portions of the curriculum delivered in field placement situations governed by legislation which prohibits involvement by persons with a record of offences, or persons less than 18 years of age. Specifics are provided in the admissions section attached to relevant programs.

Certificates are usually awarded upon the completion of programs in which the program objectives or job entry skills can be mastered in less than two years. Formal academic qualifications are usually less important in the admissions process than being able to perform the tasks expected at program entry. With the help of an Admissions Officer, we will help find a starting point that is best for you.

Many of our full time certificate programs are approved for sponsorship by the Canada Employment and Immigration Commission. If you qualify for sponsorship, which includes being out of school for at least 12 months, your tuition fees will be paid by the Commission, and you will get a weekly training allowance. Contact your nearest Canada Employment Centre for more details.

Entry Requirements for Mature Students

Applicants who have not completed the basic academic admissions requirements can apply and qualify as mature students. The only criteria are that applicants must be at least 19 years of age, and be permanent residents of Canada. Our Admissions Department will assess your current strengths to determine if you should begin the program of your choice right away, or whether some time spent improving your basic academic foundation in one of our other programs would give you a stronger start. If you have not decided on a career goal, an interview with an Admissions Counsellor may be the place to start. An appointment can be made by calling one of our Registration Centres.

Studying as a Part-Time Student

Under special approval a student may be allowed to take day programs on a part-time basis. If you are interested in evening classes, please refer to the Inroads publication available at our Registration Centres, or by phoning 675-5005.

How to Apply to Humber College

All Colleges of Applied Arts and Technology in Ontario use the same application form. Starting in November, these forms are available in Secondary School Guidance offices across the Province or through your local College of Applied Arts and Technology. Read the application carefully, and fill it out as soon as possible. If you are in Secondary School now, you will receive instructions from your guidance office.

Some Important Dates

March 1. Applications from Ontario residents received by this date are considered on an equal basis. Subsequent applications are considered on a first come first served basis as long as space permits. You should be aware that if you are considering a popular program that an application received after March 1 puts you at a severe disadvantage.

January - April. Some programs have interviews, information sessions or other types of assessment procedures. This is the period when most of these take place.

April 15. This is the first date that colleges can notify applicants that they have been accepted for the fall term. The process of accepting students will continue until all programs have reached their maximum. Normally Humber College has openings in some programs until into the summer.

Please Note

It is your responsibility to arrange to have an official transcript of your final grades sent to our Registrar's Office as soon as it is available. Without this final step we cannot complete the registration process.

Priority of Admission

Students are admitted to Humber College according to the following order of preference:

1. Permanent residents of Ontario
2. Permanent residents from other Canadian provinces
3. Overseas students from Commonwealth countries
4. Students from other foreign countries.

Applicants Outside Ontario

If you attended high school in another province or country, you must prove that your educational standing is equivalent to the Ontario Secondary School Graduation Diploma. Normally, this means grade 12 everywhere in Canada, except in Quebec where the equivalent is grade 11 plus one year of CEGEP. If you are a visa student and your first language is other than English, please include the results of the TOEFL (Test of English as a Foreign Language) with your application. For information on writing this test, write to Educational Testing Service, Box 899, Princeton, NJ 08540, U.S.A.

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 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 grade 13 courses and/or post-secondary 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.

When 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.

To Graduate

To Graduate, the following conditions must be satisfied:

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

(b) Students must have successfully completed all requirements of the program in which they are enrolled.

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

To Convocate

A student must apply to convocate by completing a form available from the Registrar's Office. A fee of \$10.00 is charged. The form must be completed 11 weeks prior to the date of Convocation.

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

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.

Campus Tours/Secondary School Liaison

Students often find that a tour of the College helps to understand what life at Humber is all about. You can arrange a tour of our campuses by calling the Secondary School Liaison Office at 675-3111 ext. 4014.

Note: We also have a video which can be borrowed by high schools located too far to allow students to visit us.

Third Party Access to Information

Only information regarding a student's registration status will be released by the Registrar's Office, or any other party representing the College. Personal data such as student address, telephone number, grades, progress or other personal history will not be released to any third party (this includes, friends, family members, law enforcement agencies, sponsoring agencies, etc.) without the completion of an authorization form signed by the student. These forms are available in the Registrar's Office or in Divisional Offices.

Academic Calendar*

Important Dates

1986	September 2	first day of classes
	October 13	Thanksgiving
	December 1	fees due for winter semester
	December 24	fall semester ends
1987	January 5	first day of classes
	January 12	admissions interviewing period begins
	January 16	last day to obtain refund for winter semester
	March 1	submission of applications for fall 1987 admission
	March 2 to March 6	reading week
	March 13	last day to withdraw from a course
	April 15	notification of acceptance begins
	April 17	Good Friday
	May 1	winter semester ends
	July 10	new students' fees due
	August 24	continuing students' fees due
	September 1	first day of classes
	September 7	Labour day
	September 14	last day to obtain refund for fall semester
	October 12	Thanksgiving
	November 6	last day to withdraw from a course
	November 30	fees due for winter semester
	December 18	fall semester ends

* Proposed

Fees and Financial Assistance

The basic tuition fee for full-time post-secondary diploma and certificate programs is \$297.50 per semester but subject to change as directed by the Ministry of Colleges and Administration. There is a student incidental fee of \$32.50 per semester. A \$10 convocation fee is charged to students in their graduating semester to attend Convocation. You will also be required to pay for textbooks, instruments and other supplies needed for your program. The cost of supplies can vary from \$100 to \$500 per semester.

For short programs, students must pay \$16.65 a week for tuition. Supplies for technical programs will cost \$2.50 per week and all other programs will cost \$1.25.

The full fee for applicants from foreign countries who plan to attend Humber College on a student visa is \$5,025 per academic year. There is a non-refundable deposit of \$200.

Fees can be paid by cash, certified cheque or charge card (Visa or Master Card). certified cheques and money orders should be made out to Humber College. There is a surcharge for late payment of fees.

The transfer of full-time fees to another term will be considered on an individual basis. The transfer of fees to another college of applied arts and technology (CAAT) may be allowed under special circumstances.

Refund Policy

To receive a refund the College must be notified in writing within 10 working days of your first scheduled class.

Your refund will not include your confirmation fee. Please allow four weeks for the refund cheque to be processed.

You will receive detailed information on fees and refunds with your letter of acceptance.

Equipment Deposit

Some programs at Humber involve the use of very expensive technical equipment. In these cases students may use the College's equipment by leaving a deposit at the beginning of the school year. If loss or damage occurs, the cost will be deducted from the deposit. Otherwise, the deposit will be returned at the end of the year.

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.

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 Room C133, 675-5090
- Lakeshore Room A120, 252-5571
- Queensway Room 6C, 252-9441 ext. 317
- Keelesdale Room 7, 763-5141 ext. 45

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.

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 Department 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.

Handicapped Students Facilities

Ramps make access to all campuses of the College possible to students using wheelchairs. In the North Campus and Lakeshore Campus there are elevators for which you can obtain a key with a \$5.00 deposit.

All campuses are equipped to provide basic services to handicapped students (phones, washrooms, etc.).

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 apartments, flats, rooms in houses/apartments/townhouses, room and board, houses and a "room-mates 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) 675-3111, ext. 4571.

Libraries and Bookstores

The library at your campus is well stocked with magazines, newspapers and other resource materials to help you with essays and reports or simply for your enjoyment.

The Learning Resources Centre at the North campus and the Instructional Materials Centre at the Lakeshore and Queensway campuses can provide you with the audio-visual equipment and materials that will add professionalism to your presentations.

The North, Lakeshore, Queensway and Keelestone 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
Keelestone 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.

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 Humber College Library.

Post-Secondary Academic Regulations

1.

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.

2. 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 for each semester of the program leading to a college post-secondary certificate or diploma in which he/she has enrolled. Should a student wish to take one or more supplementary credit courses or to repeat a course taken previously, additional tuition fees will be charged for each course beyond the basic program of studies.

3. 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 normally be required to complete Communications 1 and 2 prior to graduation, unless granted Advanced Standing in one or both of these required courses.

4. Remedial Activities

Some students may be required to take Language Skills and/or participate in remedial mathematics activities.

5. 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 graduating 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.

6. Course Outlines and Evaluation

At the beginning of each semester, students will receive from each instructor a course outline containing the necessary prerequisite courses, the objectives of the course, the instructional format to be used, 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.

7. Aegrotat Standing

Aegrotat Standing applies to those students whose performance was fully satisfactory but where, because of personal reasons, such a medical certificate attesting to the personal illness. Courses in which Aegrotat standing 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. 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. Procedures for withdrawal from a program in whole or in part, are initiated with the Divisional Dean.

(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, or inappropriate classroom/lab behaviour.

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

(d) 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 the tenth school day after the start date of the course or program.

10. Transfers

Transfers between divisions or programs should be processed through the Office of the Registrar.

11. 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.

12. 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.

13. Plagiarism

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. Submission of a term paper written in whole or in part by someone other than oneself, or copying of an answer or answers of another student in any test, examination or assignment also constitutes plagiarism.

14. Student Appeal Procedure

Where a student disagrees with a final 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) Unresolved matters will be discussed 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. A five dollar (\$5.00) fee is required which is refundable if the Appeals Board finds in favour of the student.

15. Supplementary Examination

Applicable policies can be obtained from the office of the Divisional Dean.

These regulations are in effect for the academic year 1986/87.

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 and Human Services, Hospitality, 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.

Applied and Creative Arts



Advertising and Graphic Design

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
Communications 1	4
General Studies	3
Semester 2 (24 hours/week)	Credits
470-201 Graphics 2 <i>Pre-Req:</i> 470-101 Graphics 1	2
470-207 Typography 2 <i>Pre-Req:</i> 470-107 Typography 1	3
470-208 Design 2 <i>Pre-Req:</i> 470-108 Design 1	3
470-211 Studio Methods 2 <i>Pre-Req:</i> 470-111 Studio Methods 1	2
243-215 Advertising 2	1
470-206 Photography for Graphics 2 <i>Pre-Req:</i> 470-106 Photography for Graphics 1	3
470-202 Perspective 2 <i>Pre-Req:</i> 470-102 Perspective 1	3
Communications 2	4
General Studies	3
Semester 3 (26 hours/week)	Credits
470-301 Graphics 3 <i>Pre-Req:</i> 470-201 Graphics 2	8
470-307 Typography 3 <i>Pre-Req:</i> 470-207 Typography 2	3
470-109 Illustration 1 <i>Pre-Req:</i> 470-202 Perspective 2	4
470-130 Mechanicals 1 <i>Pre-Req:</i> 470-111 Studio Methods 1	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 <i>Pre-Req:</i> 470-301 Graphics 3	8
470-407 Typography 4 <i>Pre-Req:</i> 470-307 Typography 3	3
470-209 Illustration 2 <i>Pre-Req:</i> 470-109 Illustration 1	4

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 or equivalent
- pre-admission interview with presentation of a portfolio made up of 10-15 pieces and a sketch book to demonstrate your design and drawing skills and establish your level of competency

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.

470-230 Mechanicals 2 <i>Pre-Req:</i> 470-211 Studio Methods 2	3
470-402 Perspective 3 <i>Pre-Req:</i> 470-202 Perspective 2	3
470-405 Computer Graphics 2 <i>Pre-Req:</i> 470-305 Computer Graphics 1	2

Arts Administration

Humber College will be offering 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. Arts 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 intern-

ship 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

Curriculum

Technical Option

Semester 1 (24 hours/week)	Credits
479-117 AV Media Applications, Introduction	3
479-120 Computer Basic, Introduction	3
479-121 Photography 1	3
479-123 Television Production 1, Introduction	4
380-197 AV Mathematics	2
266-052 Basic Keyboarding	2
350-201 AV Electronics 1	3
Communications 1	4
Semester 2 (28 hours/week)	Credits
479-217 Computer-Controlled AV Equipment	2
<i>Pre-Req:</i> 479-117 AV Media Applications, Introduction	
479-121 Photography 1, 479-120 Computer Basic, Introduction	
479-220 Computer Design	3
479-221 Photography 2	3
<i>Pre-Req:</i> 479-121 Photography 1	
479-223 Television Production 2	4
<i>Pre-Req:</i> 479-123 Television Production 1, Introduction	
350-202 AV Electronics 2	3
380-198 AV Applied Physics	2
479-216 Audio Recording Techniques 1	1
<i>Pre-Req:</i> 479-117 AV Media Applications, Introduction	
Communications 2	4
General Studies (2)	6

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 or equivalent
- grade 12 technical or academic mathematics
- physics recommended
- attendance at a pre-admission orientation meeting
- a strong math and physics background would be beneficial to students in this program

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.

Descriptions for Communications and General Studies courses can be found in the Human Studies section, beginning on page 154.

Semester 3 (22 hours/week)	Credits
479-119 Graphic Applications for Media <i>Pre-Req:</i> AV Technical Program, Semesters 1 & 2	4
479-317 AV Production Workshop, Sponsored Projects <i>Pre-Req:</i> Second semester Audio Visual Technician Program	2
479-320 Computer Animation/Videotex <i>Pre-Req:</i> 479-120 Computer Basic, Introduction, 479-124 Work Experience Fieldwork	3
479-323 TV Production 3 <i>Pre-Req:</i> 479-223 Television Production 2	4
479-300 AV Electronics 3 - Tutorial <i>Pre-Req:</i> 350-202 AV Electronics 2	3
General Studies	3

(All program courses are prerequisite for Work Experience Fieldwork)

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

Production Option

Semester 1 (24 hours/week)	Credits
479-115 Scripting 1 <i>Pre-Req:</i> Acceptance into program	3
479-117 AV Media Applications, Introduction	3
479-120 Computer Basic, Introduction	3
479-121 Photography 1	3
479-123 Television Production 1, Introduction	4
380-197 AV Mathematics	2
266-052 Basic Keyboarding	2
Communications 1	4

Semester 2 (27 hours/week)	Credits
479-215 Scripting 2 Workshop	2
479-217 Computer-Controlled AV Equipment <i>Pre-Req:</i> 479-117 AV Media Applications, Introduction	2
479-121 Photography 1, 479-120 Computer Basic, Introduction	
479-220 Computer Design	3
479-221 Photography 2 <i>Pre-Req:</i> 479-121 Photography 1	3
479-223 Television Production 2 <i>Pre-Req:</i> 479-123 Television Production 1, Introduction	4
380-198 AV Applied Physics	2
479-216 Audio Recording Techniques 1 <i>Pre-Req:</i> 479-117 AV Media Applications, Introduction	1
Communications 2	4
General Studies (2)	6

Semester 3 (22 hours/week)	Credits
479-119 Graphic Applications for Media <i>Pre-Req:</i> AV Technical Program, Semesters 1 & 2	4
479-125 Lighting Applications	3
479-317 AV Production Workshop, Sponsored Projects <i>Pre-Req:</i> Second semester Audio Visual Technician Program	2
479-320 Computer Animation/Videotex <i>Pre-Req:</i> 479-120 Computer Basic, Introduction, 479-124 Work Experience Fieldwork	3
479-323 TV Production 3 <i>Pre-Req:</i> 479-223 Television Production 2	4
General Studies (2)	6

(All program courses are prerequisite for Work Experience Fieldwork)

Semester 4 (24 hours/week)	Credits
Work Experience Field Work	24



Child Care Worker Program

Curriculum

Semester 1 (24 hours/week)		Credits
113-101	Human Growth & Development 1	4
113-113	Behavioural Foundations 1	3
113-109	Theory & Practice of Therapeutic Act. 1	3
113-111	Community Services	2
113-112	Introduction to Professional Skills	2
	Communications 1	4
	General Studies (2)	6
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
113-206	Field Work 1	12
113-104	Integrative Seminar 1	2
	Communications 2	4
Semester 3 (27 hours/week)		Credits
113-110	Assessment, Planning & Recording	2
113-308	Psychopathology of Childhood 1	3
113-302	Family Dynamics 1	2
113-312	Child Care Work Methodology 1	4
113-310	Field Work 2	12
113-311	Integrative Seminar 2	1
113-307	Group Theory 1	2
Semester 4 (27 hours/week)		Credits
113-401	Family Dynamics 2	2
113-410	Child Care Work Methodology 2	4
113-305	Integrative Seminar 3	1
113-409	Field Work 3	12
113-406	Group Theory 2	2
113-407	Psychopathology of Childhood 2	3
	General Studies	3
Semester 5 (27 hours/week)		Credits
113-404	Integrative Seminar 4	1
113-511	Field Work 4	18
113-514	Counselling Skills 1	2
113-508	Treatment Philosophies 1	2
113-513	Family Intervention 1	2
113-512	Community Intervention	2

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 or equivalent
- grade 12 English
- Medical Certificate of Health. (To ensure freedom from communicable diseases that may be passed on to children.) Certificate should be submitted after receipt of approval into program.

- written documentation from employer of at least 80 hours of paid and/or volunteer experience with normal or disturbed children or adolescents in a treatment agency, co-op program, summer camp, group home, etc. This experience should be completed prior to March 1st. Babysitting experience is not eligible.
- attendance at an Orientation Session for 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 out-patient services of mental health facilities and in observation and detention facilities. We have been satisfied with the very high percentage of our students who are hired in their field after graduation. 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.

Semester 6 (28 hours/week)

	Credits	
113-503	Integrative Seminar 5	1
113-504	Field Work 5	18
113-607	Counselling Skills 2	2
113-608	Treatment Philosophies 2	2
113-613	Family Intervention 2	2
113-610	Human Sexuality	3

Community Worker Program*

Lakeshore Campus

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

*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 pre-school 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.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English
- mature students who can demonstrate that they function at least at a grade 12 level
- personal health review and immunization record certified by a qualified physician
- 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 referee of your choice
- a pre-admission 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.

Continued on page 15

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	7
<i>Pre-Req:</i> 941-105 Language Skills	
123-223 Community Pub. Relations	3
123-227 Integrative Seminar	1
123-224 Group Work Skills	3
<i>Pre-Req:</i> 123-122 Interpersonal Skills	
123-225 Political Process	3
123-226 Interviewing & Counselling Skills	3
<i>Pre-Req:</i> 123-121 Information and Referral Skills	
Communications 2	4
General Studies	3

Semester 3 (23 hours/week)	Credits
123-323 Field Practice 2	7
<i>Pre-Req:</i> 941-102 Communications 1	
123-324 Research Techniques	3
123-328 Integrative Seminar	1
123-325 Agency Administration & Fundraising	3
123-326 Cross Cultural Skills	3
123-327 Special Needs Populations	3
General Studies	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
123-431 Current Issues in Human Services	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.

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 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: portraiture, fashion, architectural, industrial and commercial illustrations.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- pre-admission interview, at which samples of black-and-white, colour slide or print photography must be presented, and/or art drawings

Community Worker Program Continued from page 14

Field Placement

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

- completion of a basic photography course is a distinct advantage
- the recommended academic preparation is grade 12 English, grade 11 math, senior physics or chemistry

Job Opportunities

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

Additional Costs

First-year students are expected to buy a medium format camera, tripod, meter, tank, auxiliary equipment and supplies (which cost approximately \$1,800 to \$3,000). Second year students will have to purchase supplies and equipment that may also cost an additional \$2,500.

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 (23 hours/week)

480-130	Photography Theory 1	Cr
480-102	Photography Studio 1	
480-120	Photography Applied 1	
480-121	Photography Darkroom Techniques 1	
480-113	Photography Lighting 1	
480-103	Elements of Photographic Design 1	
941-115	Communications 1	
	General Studies	

Semester 2 (24 hours/week)

480-230	Photography Theory 2	
480-202	Photography Studio 2	
480-220	Photography Applied 2	
480-203	Elements of Photographic Design	
480-221	Photography Darkroom Techniques 2	
480-213	Photography Lighting 2	
941-116	Communications 2	
	General Studies	

Semester 3 (24 hours/week)

480-330	Photography Theory 3	
480-302	Photography Studio 3	
480-320	Photography Applied 3	
480-133	Photography Colour Process	
<i>Pre-Req: Successful completion of first year</i>		
480-321	Darkroom Techniques 3	
480-134	Photography - Graphics 1	
480-313	Lighting 3	
	General Studies	

Semester 4 (22 hours/week)

241-008	Photography - Marketing/Business Management 2	
480-430	Photography Theory 4	
480-402	Photography Studio 4	
480-420	Photography Applied 4	
480-136	A/V Techniques	
480-137	Professional Studies	
480-403	Photography Colour Techniques	
	General Studies	

Developmental Services Worker

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	2
<i>Pre-Req: 112-119 Applied Methods 1</i>		
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.		
112-427	Residential Module	5
112-428	Developmental Education Module	5
112-406	Multi-handicapped Module	5

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 or equivalent
- grade 12 English
- good health as certified by a physician (OHIP personal or family coverage is essential)
- pre-admission interview (long distance telephone call if special need arises)
- working or volunteer experience with the developmentally handicapped with letters of reference

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.

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 will need a video tape cassette. Living and travel expenses during field placement should also be included in your budget.

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 modelling and in 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 the acceptance of trends in the wholesale or retail fashion as well as in the beauty industry.

The first year of the program is the same, whether you enter the Modelling option or the Fashion and Cosmetic Management option. It is during this year that you should develop an awareness of your special interests and talents.

Field trips include fashion shows, cosmetic outlets, photography studios, the wholesale garment industry, and the 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 or equivalent
- excellent communication skills and outgoing personality
- a basic understanding of the fashion industry is an asset for your success in this program.
- for aspiring models, clear skin, white even teeth, photogenic face and a well-proportioned slender body (between 5'6 and 5'10) are minimum requirements established by the industry.
- orientation session at which you should bring a snapshot of yourself (preferably head and shoulders). Telephone orientation is possible for students who live far outside of the metro Toronto area.

Job Opportunities

Armed with a carefully prepared professional portfolio assembled in the second year graduates will look for jobs as fashion models in top modelling or wholesale agencies, as fashion photography stylists, as cosmetic representatives or product managers, as make-up artists, as exercise and fitness instructors, in beauty spa or modelling agency management, and as cosmetic or fashion boutique managers.



Curriculum

Year 1

Fall Semester (23 hours/week)		Credits
135-100	Cosmetic, Beauty and Health Theory 1	4
135-101	Cosmetic Applications and Sales Techniques 1	2
135-102	Basic TV Techniques 1	2
135-103	Wholesale and Retail Fashion Industry 1	2
135-104	Fashion Coordination	2
135-105	Fashion Industry Orientation 1	4
	Communications 1	4
	General Studies	3

Winter Semester (23 hours/week)		Credits
135-200	Cosmetic, Beauty and Health Theory 2	4
135-201	Cosmetic Applications and Sales Techniques 2	2
135-202	Basic TV Techniques 2	2
135-203	Wholesale and Retail Fashion Industry 2	2
135-204	Fashion and Beauty Promotion	2
135-205	Fashion Industry Orientation 2	4
	Communications 2	4
	General Studies	3

Year 2 Modelling Option

Fall Semester (23 hours/week)		Credits
136-100	Fashion Modelling Cosmetic Practice 1	2
136-101	TV Commercials 1	2
136-102	Fashion Marketing Techniques 1	2
136-103	Fashion Modelling Employment 1	4
136-104	Modelling and Choreography Techniques 1	4
136-105	Modelling For Fashion Photography 1	4
136-106	Fitness Techniques and Practice 1	2
	General Studies	3

Winter Semester (23 hours/week)		Credits
136-200	Fashion Modelling Cosmetic Practice 2	2
136-201	TV Commercials 2	2
136-202	Fashion Marketing Techniques 2	2
136-203	Fashion Modelling Employment 2	4
136-204	Modelling and Choreography Techniques 2	4

136-205	Modelling For Fashion Photography 2	4
136-206	Fitness Techniques and Practice 2	2
	General Studies	3

**Year 2
Fashion and Cosmetic
Management Option**

Fall Semester (23 hours/week)		Credits
136-107	Cosmetic & Beauty Management 1	4
136-108	Cosmetic & Beauty Practice 1	2
136-101	TV Commercials 1	2
136-102	Fashion Marketing Techniques 1	2
136-109	Fashion & Cosmetics Employment 1	4

136-106	Fitness Techniques and Practice 1	2
136-110	Styling For Fashion Photography 1	4
	General Studies	3

Winter Semester (23 hours/week)		Credits
136-207	Cosmetic & Beauty Management 2	4
136-208	Cosmetic & Beauty Practice 2	2
136-201	TV Commercials 2	2
136-202	Fashion Marketing Techniques 2	2
136-209	Fashion & Cosmetics Employment 2	4
136-206	Fitness Techniques and Practice 2	2
136-210	Styling For Fashion Photography 2	4
	General Studies	3

Film and Television Production

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	2
<i>Pre-Req: Documentary Film Styles (minimum of 60%)</i>		
478-200	Script Writing 2	2
478-201	Super 8 Production Workshop 2	4
<i>Pre-Req: 478-101 Super-8 Production Workshop 1</i>		
478-206	Still Photography 2	3
<i>Pre-Req: 478-106 Still Photography</i>		
478-205	T.V. Production/Direction	3
<i>Pre-Req: 478-132 Intro to T.V. Production</i>		
	Communications 2	4
	General Studies (2)	6

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, directors, writers, editors, lighting technicians, and production managers. During the third year, students devote most of their time to tape and film, A.V. productions. Our student productions have won acclaim in competition and at festivals.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- applicants are required to submit a typed essay, completed questionnaire, resume and 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.

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	3
<i>Pre-Req:</i> Introduction to T.V. Production 2		
478-306	Still Photography 2	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	4
<i>Pre-Req:</i> Basic Colour T.V. Production (Theory)		
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
<i>Pre-Req:</i> 478-137 Sound Recording 1		
478-238	Post Production Techniques 2 - 16mm	2
<i>Pre-Req:</i> 478-138 Post Production Techniques 1 - 16mm		
478-239	Graphics & Animation 2	2
<i>Pre-Req:</i> 478-139 Graphic & Animation 1		
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	3
<i>Pre-Req:</i> 478-306 Still Photography 3		
478-405	Sound Recording Post Prod. Workshop 2	2
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	2
<i>Pre-Req:</i> 478-237 Sound Recording 2		
478-341	Post Production 3	2
478-342	Animation 3	2
<i>Pre-Req:</i> 478-239 Graphics & Animation 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*	2
<i>Pre-Req:</i> 478-334 Production Management 3		
478-245	Film & T.V. Camera 2*	2
478-432	Directing 4*	2
478-440	Sound Recording & Mixing 4*	2
<i>Pre-Req:</i> 478-340 Sound Recording and Mixing 3		
478-441	Post Production 4*	2
<i>Pre-Req:</i> 478-341 Post Production 3		
478-442	Animation 4*	2
<i>Pre-Req:</i> 478-342 Animation 3		
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)

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

North Campus

Basic 12-week course beginning November

Advanced 8-week course beginning February

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, arborist)
- registration through the local apprenticeship branch office

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.

Advanced Course (1986 only)

	Credits
610-312 Trade Practice 2	8
610-313 Trade Theory 2	16
610-314 Trade Communications 2	3
610-311 Trade Calculations 2	3

Advanced Course: (as of 1987)

	Credits
Trade Practice 2	9
Trade Theory 2	18
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.

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.

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.

Industrial Design

Curriculum

Semester 1 (24 hours/week)	Credits
472-150 Industrial Design 1	4
472-151 Technical Communications 1	3
472-152 Design Presentations 1 (Drawing Fundamentals)	4
472-153 Elements of Design	3
472-154 Modelmaking 1	4
472-155 History of Art Communications 1	2
	4
Semester 2 (24 hours/week)	Credits
472-250 Industrial Design 2 <i>Pre-Req: 472-150 Industrial Design 1</i>	5
472-251 Technical Communications 2 <i>Pre-Req: 472-151 Technical Communications 1</i>	3
472-252 Design Presentations 2 <i>Pre-Req: 472-152 Design Presentations 1</i>	3
472-253 Design Applications <i>Pre-Req: 472-153 Elements of Design</i>	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 <i>Pre-Req: 472-250 Industrial Design 2</i>	5
472-303 Design International	3
472-352 Design Presentations 3 <i>Pre-Req: 472-252 Design Presentations 2</i>	3
472-351 Materials & Processes 1 <i>Pre-Req: 472-154 Modelmaking 1, 472-251 Technical Communications 2, 472-250 Industrial Design 2</i>	4
472-353 Design Futures <i>Pre-Req: 472-253 Design Applications</i>	3
472-354 Design Graphics <i>Pre-Req: 472-253 Design Applications</i>	3
472-355 History of Industrial Design <i>Pre-Req: 472-254 History of Art 2</i>	2
Semester 4 (20 hours/week)	Credits
472-450 Industrial Design 4 <i>Pre-Req: 472-350 Industrial Design 3</i>	6
472-452 Design Presentations 4 <i>Pre-Req: 472-352 Design Presentations 3</i>	4

North Campus

Six semesters beginning September

Look around you ... almost everything you see which is man-made 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, your concern for the 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 have 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 or equivalent
- interview, at which samples of your sketches, photographs of your hobbies, craftwork, artwork, school projects, etc. must be presented

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 different 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 projects 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.

472-451 Materials & Processes 2 <i>Pre-Req:</i> 472-351 Materials & Processes 1	4
472-453 Systems Development 1	3
472-402 Introduction to Computer Graphics and 2-Dimensional Computer Aided Design	
General Studies	3
Semester 5 (21 hours/week)	Credits
472-550 Industrial Design 5 <i>Pre-Req:</i> 472-450 Industrial Design 4	6
472-551 Advanced Materials Applications <i>Pre-Req:</i> 472-451 Materials & Processes 2	2
472-552 Systems Development 2 <i>Pre-Req:</i> 472-453 Systems Development 1	3
472-553 Thesis 1 <i>Pre-Req:</i> 472-450 Industrial Design 4	3
472-554 Ergonomics <i>Pre-Req:</i> 472-450 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 <i>Pre-Req:</i> 472-550 Industrial Design 5	6
472-653 Thesis 2 <i>Pre-Req:</i> 472-553 Thesis 1	6
472-652 Portfolio <i>Pre-Req:</i> 472-452 Design Presentations 4	3
472-651 Design Management	3
General Studies	3

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 future products.

Interior Design

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 <i>Pre-Req:</i> 473-100 Interior Design 1	8
473-203 Drafting and Detailing 2 <i>Pre-Req:</i> 473-103 Drafting & Detailing 1	5
473-204 Art History 2 <i>Pre-Req:</i> 473-108 Art History 1	1
473-215 Freehand Drawing 2 <i>Pre-Req:</i> 473-115 Freehand Drawing 1	

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, 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 or equivalent
- pre-admission interview with presentation of a portfolio; studio skills test

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 <i>Pre-Req: 473-200 Interior Design 2</i>	10
473-307 Drafting & Detailing 3 <i>Pre-Req: 473-203 Drafting and Detailing 2</i>	3
473-308 Art History 3 <i>Pre-Req: 473-204 Art History 2</i>	2
473-301 Perspective & Rendering 2 <i>Pre-Req: 473-102 Perspective & Rendering 1</i>	3
473-211 Materials 2 <i>Pre-Req: 473-111 Materials 1</i>	2
473-110 Graphics for Interior Design	
473-113 Lighting 1	2
General Studies	3
Semester 4 (28 hours/week)	Credits
473-400 Interior Design 4 <i>Pre-Req: 473-300 Interior Design 3</i>	10
473-403 Drafting & Detailing 4 <i>Pre-Req: 473-307 Drafting and Detailing 3</i>	2
473-408 Art History 4 <i>Pre-Req: 473-308 Art History 3</i>	2
473-302 Perspective & Rendering 3 <i>Pre-Req: 473-301 Perspective & Rendering 2</i>	3
473-311 Materials 3 <i>Pre-Req: 473-211 Materials 2</i>	2
473-401 Basic Photography 1	3
473-132 Professional Practice	2
473-404 Introduction to Computer Graphics and 2-Dimensional Computer-Aided Design	2
Lighting 2	2

Semester 5 (25 hours/week)	Credits
473-501 Interior Design 5 <i>Pre-Req: 473-400 Interior Design 4</i>	
473-507 Drafting & Detailing 5 <i>Pre-Req: 473-403 Drafting and Detailing 4</i>	3
473-402 Perspective & Rendering 4 <i>Pre-Req: 473-302 Perspective & Rendering 3</i>	2
473-201 Design Theory 2 <i>Pre-Req: Design Theory 1/Interior Basics</i>	2
932-106 Aesthetics	2
473-114 Mechanical Systems	2
473-504 Computer Aided Design 2 <i>Pre-Req: 473-404 Introduction to Computer Graphics and 2-Dimensional Computer-Aided Design</i>	2
General Studies	3

Semester 6 (18 hours/week)	Credits
473-601 Interior Design 6 <i>Pre-Req: 473-501 Interior Design 5</i>	9
473-607 Drafting & Detailing 6 <i>Pre-Req: 473-507 Drafting & Detailing 5</i>	3
473-503 Perspective & Rendering 5 <i>Pre-Req: 473-402 Perspective & Rendering 4</i>	2
473-134 Merchandising	2
473-135 Environmental Studies	2
473-136 In-Office Practice <i>Pre-Req: 473-507 Drafting & Detailing 5, 473-501 Interior Design 5</i>	8

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, contracting firms and furniture manufacturers. In addition, opportunities exist for freelancing.

Additional Costs
 Approximately \$500.00 per academic year.

Journalism

Curriculum

Semester 1 (24 hours/week)		Credits
475-100	Fundamentals of Reporting	6
475-183	Media & Society	2
	Political Science 1	3
	Communications 1	4
	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
	<i>Pre-Req:</i> 475-100 Fundamentals of Reporting	
475-134	T.V. News 1	3
	<i>Pre-Req:</i> 475-100 Fundamentals of Reporting	
475-201	Newspaper Reporting 1	6
	<i>Pre-Req:</i> 475-100 Fundamentals of Reporting	
262-124	Journalism Notetaking	
	Conversational French 2	3
	Communications 2	4
	General Studies	3
Semester 3 (25 hours/week)		Credits
475-104	Newspaper Layout & Design	2
475-136	Editorials/Reviews/Copy Editing	3
	<i>Pre-Req:</i> 475-201 Newspaper Reporting 1	
475-138	Magazine Writing 1	2
	<i>Pre-Req:</i> 475-183 Media & Society	
475-301	News Photography	2
	<i>Pre-Req:</i> 475-106 Photography Basic 1	
475-302	T.V. News 2	3
	<i>Pre-Req:</i> 475-134 T.V. News 1	
475-235	Radio News 2, & Voice Train.	2
	<i>Pre-Req:</i> 475-133 Radio News 1	
475-304	Newspaper Reporting 2	3
	<i>Pre-Req:</i> 475-201 Newspaper Reporting 1	
924-101	Psychology - An Introduction	
	Sociology for Journalism	3
	General Studies	3
Semester 4 (23 hours/week)		Credits
475-107	Journalism Seminar	2
	<i>Pre-Req:</i> 475-304 Newspaper Reporting 2	

North Campus

Six semesters beginning September

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 the medium of their choice: newspapers, magazines, a professionally-operated color television studio, and with closed-circuit studios of the Radio Broadcasting Program.

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

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- pre-admission assessment and interview
- typing prerequisite

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 small-community television and radio stations, as newsletter editors, and in corporate and government information services.

475-108 Magazine Layout & Design <i>Pre-Req:</i> 475-104 Newspaper Layout & Design	2
475-139 Critique 1	1
475-238 Magazine Writing 2 <i>Pre-Req:</i> 475-138 Magazine Writing 1	2
475-333 Radio News 3 <i>Pre-Req:</i> 475-235 Radio News 2, & Voice Train.	2
475-334 TV News 3 <i>Pre-Req:</i> 475-302 T. V. News 2	
475-400 Newspaper Reporting 3 <i>Pre-Req:</i> 475-304 Newspaper Reporting 2	2
475-401 Basic TV Production <i>Pre-Req:</i> 475-302 T. V. News 2	3
Political Science 2 for Journalism	3
Economics for Journalism	3

Pathways Newspaper Journalism

Semester 5 (16 hours/week)	Credits
475-181 Labour Reporting/Journalism and the Law	3
475-182 Press Time 1 <i>Pre-Req:</i> 475-400 Newspaper Reporting 3	6
475-239 Critique 2 <i>Pre-Req:</i> 475-139 Critique 1	1
475-502 Print Management	2
475-505 Print Internship 1 <i>Pre-req:</i> Completion of all subjects in Semesters 1-4	16
20th Century History	2

Semester 6 (10 hours/week)	Credits
475-282 Press Time 2 <i>Pre-Req:</i> 475-182 Press Time 1	10
475-601 Case Studies	2
475-605 Print Internship 2 <i>Pre-Req:</i> 475-505 Print Internship 1	16

Magazines

Pre-req: Completion of all subjects in Semesters 1-4

Semester 5 (11 hours/week)	Credits
475-181 Labour Reporting/Journalism and the Law	3

475-502 Print Management	2
475-180 Logo 1 <i>Pre-Req:</i> 475-238 Magazine Writing 2	6
475-505 Print Internship 1	16
20th Century History	2

Semester 6 (6 hours/week) Credits

475-280 Logo 2 <i>Pre-Req:</i> 475-180 Logo 1	6
475-601 Case Studies	2
475-605 Print Internship 2 <i>Pre-Req:</i> 475-505 Print Internship 1	16

Broadcast Journalism

Semester 5 (15 hours/week) Credits

475-181 Labour Reporting/Journalism and the Law	3
475-506 TV News 4 <i>Pre-Req:</i> T. V. News 3/Basic T. V. Production	5
475-507 Radio News 4 <i>Pre-Req:</i> 475-333 Radio News 3	3
475-509 Newsroom Management <i>Pre-Req:</i> 475-334 TV News 3	2
475-511 Broadcast Internship <i>Pre-Req:</i> Completion of all subjects in Semesters 1-4	16
20th Century History	2

Semester 6 (8 hours/week) Credits

475-601 Case Studies	2
475-611 Broadcast Internship 2 <i>Pre-Req:</i> 475-511 Broadcast Internship	16
475-606 TV News 5 <i>Pre-Req:</i> 475-506 TV News 4	4
475-607 Radio News 5 <i>Pre-Req:</i> 475-507 Radio News 4	2



Landscape Technician/Technologist 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
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 (25 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	3
<i>Pre-Req:</i> 152-232 Arboriculture 2	
152-334 Plant Identification 3	2
<i>Pre-Req:</i> 152-234 Plant Identification 2	
General Studies	3
Semester 4 (23 hours/week)	Credits
152-401 Site Construction 2	4
Field Instruction 2	4
152-405 Interior Plantscape Option	4
OR	
152-407 Landscape Option	4
152-408 Floriculture 2	3
<i>Pre-Req:</i> 152-308 Floriculture 1	
152-433 Arboriculture 4	3
152-435 Landscape Design 2	2
152-434 Plant Identification 4	2
<i>Pre-Req:</i> 152-334 Plant Identification 3	

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 or equivalent
- students must attend a group interview with program staff and a general knowledge assessment prior to being accepted into the program
- grade 12 math and some experience in the landscape industry would be an asset

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.

221-010 Elements of Accounting	4
General Studies	3
Semester 5 (29 hours/week) (July-August)	Credits
152-517 Landscape Design & Presentation 1	3
<i>Pre-Req:</i> 152-435 Landscape Design 2	
152-518 Construction Practices 1	8
<i>Pre-Req:</i> 152-401 Site Construction 2 and One option of Field Instruction 2	
152-534 Plant Identification 5	2
<i>Pre-Req:</i> 152-434 Plant Identification 4	
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	<i>Pre-Req:</i> 152-517 Landscape Design & Presentation 1	3
152-618 Construction Practices 2	<i>Pre-Req:</i> 152-518 Construction Practices 1	6
152-634 Plant Identification 6	<i>Pre-Req:</i> 152-534 Plant Identification 5	2

241-012 Sales Marketing & Advertising	4
258-001 Insurance & Risks	3
75'9-103 First Aid & Accident Prevention	1
152-605 Construction Management	4
152-606 Supervision & Management	4

Law and Security Administration

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. Communications 1		4
Introductory Psychology*		3

Semester 2 (24 hours/week)		Credits
759-103 First Aid & Accident Prevention		1
124-303 Criminal Legislation 1	<i>Pre-Req:</i> 124-102 Introduction to Law	4
124-201 Nature of Crime 2	<i>Pre-Req:</i> 124-101 Nature of Crime 1	4
124-108 Security Practices		4
124-302 Criminalistics 1		4
124-207 Police Physical Fitness 2	<i>Pre-Req:</i> 124-107 Police Physical Fitness 1	1
Communications 2		4
Introductory Psychology*		3

*May be taken either semester

Semester 3 (26 hours/week)		Credits
124-704 Crisis Intervention		3
124-406 Criminalistics 2	<i>Pre-Req:</i> 124-302 Criminalistics 1	4
124-401 Criminal Legislation 2	<i>Pre-Req:</i> 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	<i>Pre-Req:</i> 124-207 Police Physical Fitness 2	1
General Studies		3

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 at the general level or equivalent
 - medical certificate
 - due to the strenuous nature of the physical fitness activities in this program a satisfactory medical will be required.
- Applicants who wish to apply for either field placement or employment with any

Police Force will also require a test for colour blindness.

- 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.
- 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.

Semester 4 (24 hours/week)		Credits
124-110 Politics & Power Structures		3
124-402 Field Practice 2		4
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	<i>Pre-Req:</i> 124-307 Police Physical Fitness 3	1
General Studies		3

During the second year you will spend at least 100 hours in field placement.

Music Program

Curriculum

Semester 1	Credits
137-106 Ear Training 1	2
137-700 Ensemble/Improv. Lecture-1*	4
137-107 Functional Keyboard 1	2
137-101 Major Instrument Workshop 1	2
137-105 Theory 1	4
137-109 World Music 1	2
Major Instrument 1	4
Communications 1	4
Semester 2	Credits
137-206 Ear Training 2	2
<i>Pre-Req:</i> 137-106 Ear Training 1	
137-700 Ensemble/Improv. Lecture-1*	4
137-207 Functional Keyboard 2	2
137-201 Major Instrument Workshop 2	2
137-205 Theory 2	4
137-209 World Music 2	2
Major Instrument 2	4
Communications 2	4

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
137-305 Theory 3	2
Ensembles*	2
Major Instrument 3	4
General Studies	3

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

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

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 extensively 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 or equivalent
- audition and music theory assessment
- Important: When filling out your application for the Music program, please indicate your major instrument on the form.

Job Opportunities

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

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

*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 29.

Major Instrument 1:	Credits
137-190 Major Instrument 1 - Bass	4
137-191 French Horn	
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	

137-198 Major Instrument (Voice) 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	4
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
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 advised to take Functional Keyboard Classes beyond the required Level 1 and 2.	
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	
137-588	Major Instrument - Vocal	4
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 Program

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 or equivalent (including Biology, plus a strong hobby naturalist background)
- OR a graduate of a complementary college program; i.e. Recreation Leadership, Horticulture, Fish and Wildlife Management

- OR completion of a relevant Natural Science course
- OR a strong work experience background dealing with resource management or a natural science area
- an interview to determine suitability
- if you feel your biology background is weak, you may wish to enroll in a part-time course offered at night: Field Biology and Ecology for Field Naturalists

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 and relocation expenses may be involved in the second semester.

For more information contact Art Coles at 675-3111 ext. 4455.

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.

Curriculum

Semester 1 (24 hours/week)

Course	Credits
941-102 Communications 1 <i>Pre-Req:</i> Language Skills or equivalent.	4
151-101 Life Span Development	3
151-102 Social Interaction in Interpretation	3
151-103 Interpretive Planning	4
151-104 Nature Interpretation Resources 1	4
151-105 Canadian Education in the Out-of-Doors	4
151-106 Understanding Management	2

Semester 2 (23 hours/week)

Course	Credits
151-304 Nature Interpretation Resources 2 <i>Pre-Req:</i> 151-104 Nature Interpretation Resources 1	4
151-303 Applied Interpretation <i>Pre-Req:</i> 151-103 Interpretive Planning	4
151-302 Field Studies	4
151-301 Field Placement	3
151-306 Management	3
759-103 First Aid & Accident Prevention	1
151-305 Media Applications	3
Communications 2	4

Semester 3

Course	Credits
151-201 Field Placement <i>Pre-Req:</i> Summer field placement	6



Descriptions for Communications and General Studies courses can be found in the Human Studies section, beginning on page 154.

Package Design

Curriculum

Semester 1 (24 hours/week)	Credits
471-101 Packaging Graphics 1 <i>Pre-Req:</i> 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	
471-106 Packaging Studio Methods 1	3
471-108 History of Packaging 1	3
476-107 Packaging Drawing 1	3
Communications 1	4
Semester 2 (26 hours/week)	Credits
471-201 Packaging Graphics 2 <i>Pre-Req:</i> 471-102 Packaging Design 1, 471-101 Packaging Graphics 1, 471-106 Packaging Studio Methods 1, 471-105 Packaging Typography 1	3
471-231 Packaging Technology 2 <i>Pre-Req:</i> 471-131 Packaging Technology 1	2
471-206 Packaging Studio Methods 2 <i>Pre-Req:</i> 471-106 Packaging Studio Methods 1	3
471-232 Packaging Research 2 <i>Pre-Req:</i> Packaging Research 1	2
471-207 Technical Illustration 1 <i>Pre-Req:</i> 476-107 Packaging Drawing 1, 471-106 Packaging Studio Methods 1	3
471-112 Perceptions and Colour	3
Communications 2	4
General Studies	3
Semester 3 (25 hours/week)	Credits
471-301 Packaging Research 3 <i>Pre-Req:</i> 471-232 Packaging Research 2	1
471-302 Materials and Testing 1 <i>Pre-Req:</i> 471-201 Packaging Graphics 2, 471-231 Packaging Technology 2	2
471-205 Packaging Typography 2 <i>Pre-Req:</i> 471-105 Packaging Typography 1	3
471-303 3-Dimensional Design 1 <i>Pre-Req:</i> 471-206 Packaging Studio Methods 2, 471-207 Technical Illustration 1, 471-201 Packaging Graphics 2	8
471-304 Printing Processes 1 <i>Pre-Req:</i> 471-206 Packaging Studio Methods 2	3
471-305 Packaging Machinery 1 <i>Pre-Req:</i> 471-231 Packaging Technology 2	2
471-306 Government Regulations 1 <i>Pre-Req:</i> 471-232 Packaging Research 2, 471-201 Packaging Graphics 2, 471-206 Packaging Studio Methods 2	3

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.

471-230 Marketing Design Objectives 2	3
<i>Pre-Req:</i> 471-130 Marketing Design Objective 1	
General Studies	3
Semester 4 (25 hours/week)	Credits
471-401 Packaging Research 4 <i>Pre-Req:</i> 471-301 Packaging Research 3	1
471-402 Materials & Testing 2 <i>Pre-Req:</i> 471-302 Materials and Testing 1	3
471-403 3-Dimensional Design 2 <i>Pre-Req:</i> 471-303 3-Dimensional Design 1	7
471-404 Printing Processes 2 <i>Pre-Req:</i> 471-304 Printing Processes 1	2
471-405 Packaging Machinery 2 <i>Pre-Req:</i> 471-305 Packaging Machinery 1	2
471-406 Resource Management <i>Pre-Req:</i> 471-230 Marketing Design Objectives 2, 471-301 Packaging Research 3	3

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- counselling interview
- presentation of a portfolio

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.

471-137 Public Relations	2
471-505 An Introduction to Computer Graphics and 2-Dimensional Computer Aided Design	2
General Studies	3
Semester 5 (24 hours/week)	Credits
471-501 Packaging Research 5 <i>Pre-Req: 471-401 Packaging Research 4</i>	2
471-533 Packaging For The Future <i>Pre-Req: 471-403 3-Dimensional Design 2, 471-406 Resource Management</i>	3

471-507 Computer Graphics 2	2
471-503 Package Design Option <i>Pre-Req: 471-403 3-Dimensional Design 2</i>	14
General Studies	3
Semester 6 (20 hours/week)	Credits
471-602 Co-Operative (Fieldwork) <i>Pre-Req: Completion of Semesters 1-5</i>	14
471-601 Packaging Research 6 <i>Pre-Req: 471-501 Packaging Research 5</i>	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 which make our life what it is. 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 have the opportunity to work for four months in a public relations environment. 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 and the ability to understand other people's points of view.

Admission Requirements

- Ontario Secondary School Diploma or equivalent (except for Certificate Students)
 - pre-admission interview at which an aptitude test will be written
- *for advanced-standing students, see the Public Relations Certificate Program (next page)

Curriculum

Semester 1 (24 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 for P.R. Practitioners	2
Personal Dynamics	2
Economics for PR	3
Communications 1	4
General Studies	3
Semester 2 (23 hours/week)	Credits
476-210 PR Writing and PR Lab 2 <i>Pre-Req: 476-110 PR Writing 1 and PR Lab 1</i>	4
476-202 Effective Speech 2 <i>Pre-Req: 476-102 Effective Speech 1</i>	2
476-131 Introduction to Radio	2
Personal Dynamics	2
Political Science 1	3
Communications 2	4
General Studies (2)	6
Semester 3 (20 hours/week)	Credits
476-310 PR Writing 3 and PR Lab 3 <i>Pre-Req: 476-210 PR Writing and PR Lab 2</i>	4
476-104 Layout & Production for Print 1	3
476-105 Intro. to Advertising	2
476-137 Practical PR I	2

476-133 Elements of FILM/TV	2
476-138 A/V Techniques for PR	2
476-411 Element of Fundraising	2
General Studies	3
Semester 4 (23 hours/week)	Credits
476-400 PR Writing 4 <i>Pre-Req: 476-310 PR Writing 3 and PR Lab 3</i>	4
476-412 PR Lab 4	4
476-204 Layout & Production for Print 2 <i>Pre-Req: 476-104 Layout & Production for Print 1</i>	3
476-413 Seminar 1	2
476-139 P.R. Research	
476-203 Case Studies 2 <i>Pre-Req: 476-101 Introduction to PR & Case Studies</i>	2
476-206 Advertising Writing for PR <i>Pre-Req: 476-105 Intro. to Advertising</i>	2
Business Procedures & Marketing for P.R.	4
Semester 5 (21 hours/week)	Credits
476-501 PR Writing 5 <i>Pre-Req: 476-400 PR Writing 4</i>	2

476-513 PR Lab 5 <i>Pre-Req: 476-412 PR Lab 4</i>	8
476-510 Seminar 2 <i>Pre-Req: 476-413 Seminar 1</i>	3
476-511 Practical PR 2 <i>Pre-Req: 476-101 Introduction to PR & Case Studies</i>	2
476-140 Persuasion & Promotion	2
476-502 Computers for PR	2
476-304 Layout & Production for Print 3 <i>Pre-Req: 476-204 Layout & Production for Print 2</i>	2
Semester 6 (2 hours classroom time/week)	
476-112 Field Work <i>Pre-Req: Passing grade in all course subjects: no more than 6 below-the-line grades</i>	

Job Opportunities

Graduates from the Public Relations Program have a wide variety of employment areas to choose 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.

Public Relations Certificate Program

Curriculum

Semester 1	Credits
476-800 Persuasion and Promotion	2
476-801 A/V Techniques for PR	2
476-802 Introduction to Public Relations and Case Studies	4
476-803 Layout & Production for Print 1	3
476-804 Introduction to Advertising for PR	2
476-805 Practical Public Relations 1	2
476-806 Practical Public Relations 2	2
476-807 PR Writing & Lab VI	4
476-808 Effective Speech 3	2
476-809 Elements of Film/TV	2
Semester 2	Credits
476-900 Elements of Research (PR)	2

A one-year Public Relations Certificate program is offered for mature students. To qualify candidates need to have either: 1. Education from a College or University; 2. appropriate work experience. Applicants are required to come to the College for an interview and complete a short writing assignment. The program begins in September.

After completing 2 semesters of classroom work students experience a valuable internship in the industry. This takes place in the May-June period. More information may be obtained by calling Ab Mellor, Coordinator of Humber's Public Relations Program at 675-3111 extension 4507.

476-901 Computers and High Technology for Public Relations	2
476-903 Layout and Production for Print 2	3
476-902 PR Writing and Lab 7	4
Semester 3 (May and June)	Credits
476-904 Fieldwork <i>Pre-Req: Successful Completion of Semesters 1 and 2</i>	13

Radio Broadcasting

Curriculum

Semester 1 (21 hours/week)		Credits
477-101	Intro. to Radio	2
477-131	Op. and Engineering 1	2
477-138	Radio Lab 1	2
266-052	Basic Keyboarding	2
	Political Science 1	3
	Human Relations	3
	Communications 1	4
	General Studies	3
Semester 2 (23 hours/week)		Credits
477-110	Writing for Radio 1	2
477-102	Announcing Techniques 1	2
477-137	Broadcast Techniques	4
477-231	Operating & Engineering 2	2
	<i>Pre-Req:</i> 477-131 Op. and Engineering 1	
477-238	Radio Lab 2	2
	<i>Pre-Req:</i> 477-138 Radio Lab 1	
266-212	Keyboarding	2
477-220	Broadcast News 1	2
	Communications 2	4
	General Studies	3
Semester 3 (24 hours/week)		Credits
477-305	Radio Drama 1	2
477-135	Retail Radio Sales	2
477-136	Communications Theory	2
477-200	Writing for Radio 2	4
	<i>Pre-Req:</i> 477-110 Writing for Radio 1	
477-310	Announcing Techniques 2	4
	<i>Pre-Req:</i> 477-102 Announcing Techniques 1	
477-306	Radio Production 1	2
911-043	Linguistics 1	3
477-320	Broadcast News 2	2
	<i>Pre-Req:</i> 477-220 Broadcast News 1	
	General Studies	3
Semester 4 (24 hours/week)		Credits
477-405	Radio Drama 2	2
	<i>Pre-Req:</i> 477-305 Radio Drama 1	
477-300	Writing For Radio 3	4
	<i>Pre-Req:</i> 477-200 Writing for Radio 2	
477-401	Broadcast Research & Marketing 1	4
477-403	Announcing Techniques 3	2
	<i>Pre-Req:</i> 477-310 Announcing Techniques 2	
477-406	Radio Production 2	2

North Campus

Six semesters beginning September

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 two

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 or equivalent (except for Certificate students)
- pre-admission interview and writing/vocal skills assessment
- advanced standing is available for mature students who possess postsecondary education-related work experience, thereby completing their studies in 1 year.

Job Opportunities

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

911-046	Linguistics 2	3
477-420	Broadcast News 3	2
	<i>Pre-Req:</i> 477-320 Broadcast News 2	
477-404	National Radio Sales 1	2
	General Studies	3

Semester 5 (15 hours/week)		Credits
477-107	Radio Seminar	2
477-502	Radio Lab 3	4
	<i>Pre-Req:</i> 477-238 Radio Lab 2	
477-400	Writing for Radio 4	4
	<i>Pre-Req:</i> 477-300 Writing for Radio 3	
477-503	Announcing Techniques 4	2
	<i>Pre-Req:</i> 477-403 Announcing Techniques 3	
477-504	Broadcast Research, Marketing and National Sales 2	2
	<i>Pre-Req:</i> 477-401 Broadcast Research & Marketing 1 and National Radio Sales 1	

Semester 6 (37 hours/week)		Credits
477-600	Internship	35
	<i>Pre-Req:</i> The successful completion of every course in all previous semesters of the Radio Broadcasting Program.	
477-601	Case Studies	2
	<i>Pre-Req:</i> Five semesters of study in the Radio Broadcasting Program	

Rehabilitation Worker Program

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 vocationally-handicapped 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 to special needs persons will also find this program rewarding.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English
- ability to work with people with special needs must be shown through an employment or volunteer work history
- participation in a College Orientation Session and interview
- letters of reference from rehabilitation professionals are desirable
- Biology courses are helpful but not required

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
Communications 1	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
Communications 1	4
General Studies	3

Semester 3 (27 hours/week)	Credits
117-302 Assessment and Evaluation	3
117-305 Field Work 3 (R.W.)	14
<i>Pre-Req:</i> 941-102 Communications 1	
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.)	14
<i>Pre-Req:</i> 117-305 Field Work 3 (R.W.)	
117-405 Field Practicum 2	6
<i>Pre-Req:</i> 117-211 Field Practicum 1	

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 or equivalent

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 (24 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
221-010	Elements of Accounting	4
	Communications 1	4
Semester 2 (23 hours/week)		Credits
153-104	Floral Design Lab 2	8
	<i>Pre-Req:</i> 153-115 Floral Design Lab 1	
153-201	Plant Identification 2	2
	<i>Pre-Req:</i> 153-111 Applied Botany & Plant Identification	
153-204	Principles of Floral Design 2	2
	<i>Pre-Req:</i> 153-109 Principles of Floral Design 1	
241-003	Marketing 1 (Retail Floriculture)	4
153-216	Flower Shop Operations 2	3
	<i>Pre-Req:</i> 153-116 Flower Shop Operations 1	
	Communications 2	4
Semester 3 (24 hours/week)		Credits
153-301	Floral Design Lab 3	8
	<i>Pre-Req:</i> 153-104 Floral Design Lab 2	
153-306	Greenhouse Floriculture 1	3
	<i>Pre-Req:</i> 153-201 Applied Identification 2	
153-316	Flower Shop Operations 3	3
	<i>Pre-Req:</i> 153-216 Flower Shop Operations 2	
243-110	Elements of Advertising	4
	<i>Pre-Req:</i> 241-010 Marketing 1	
Semester 4 (21 hours/week)		Credits
153-407	Floral Design Lab 4	6
	<i>Pre-Req:</i> 153-301 Floral Design Lab 3	
153-406	Greenhouse Floriculture 2	3
	<i>Pre-Req:</i> 153-306 Greenhouse Floriculture 1	
247-010	Small Store Retailing (Floriculture)	
	<i>Pre-Req:</i> 241-010 Marketing 1	
153-416	Flower Shop Operations 4	3
	<i>Pre-Req:</i> 153-316 Flower Shop Operations 3	
153-303	Flower Shop Management 4	4

Social Service 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
122-208	Field Practice 1	7
<i>Pre-Req: 941-105 Language Skills</i>		
122-209	Contemporary Family	3
122-211	Integrative Seminar	1
123-224	Group Work Skills	3
<i>Pre-Req: 123-122 Interpersonal Skills</i>		
123-225	Political Process	3
123-226	Interviewing & Counselling Skills	3
<i>Pre-Req: 123-121 Information and Referral Skills</i>		
Communications 2		4
General Studies		3
Semester 3 (23 hours/week)		Credits
122-315	Field Practice 2	7
<i>Pre-Req: 941-115 Communications 1</i>		
122-316	Advanced Counselling	3
<i>Pre-Req: 123-226 Interviewing & Counselling Skills</i>		
122-317	Integrative Seminar	1
123-325	Agency Administration & Fundraising	3
123-326	Cross Cultural Skills	3
123-327	Special Needs Populations	3
General Studies		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
123-431	Current Issues in Human Services	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.

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.**

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 or equivalent
- mature students who can demonstrate that they function at least at a grade 12 level
- personal health review and immunization record, certified by a qualified physician
- a minimum of 50 hours of documented volunteer experience in a recognized social service and a letter of reference from someone within the profession
- a second letter of reference from a referee of your choice
- a pre-admission interview/orientation session

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**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	6
481-127 Theatre History 1	2
481-502 Dance 1	2
481-120 Improvisation 1	2
Communications 1	4
General Studies	3
Semester 2 (29 hours/week)	Credits
481-207 Movement 2	3
<i>Pre-Req:</i> 481-107 Movement 1	
481-208 Voice 2	3
<i>Pre-Req:</i> 481-108 Voice 1	
481-217 Singing 2	2
<i>Pre-Req:</i> 481-117 Singing 1	
481-228 Scene Study 2	6
<i>Pre-Req:</i> 481-126 Scene Study 1	
481-229 Improvisation 2	2
<i>Pre-Req:</i> 481-120 Improvisation 1	
481-232 Production Practices 2	2
<i>Pre-Req:</i> 481-105 Production Practices 1	
481-235 Dance 2	2
<i>Pre-Req:</i> 481-502 Dance 1	
481-227 Theatre History 2	2
<i>Pre-Req:</i> 481-127 Theatre History 1	
Communications 2	4
General Studies	3
Semester 3 (29 hours/week)	Credits
481-308 Voice 3	3
<i>Pre-Req:</i> 481-208 Voice 2	
481-309 Directing 1	2
481-318 TV Performance 1	4
481-326 Movement 3	4
<i>Pre-Req:</i> 481-207 Movement 2	
481-327 Scene Study 3	6
<i>Pre-Req:</i> 481-228 Scene Study 2	
481-328 Improvisation & Text Analysis 1	3
481-329 Singing 3	2
<i>Pre-Req:</i> 481-217 Singing 2	
481-330 Fencing & Stage Combat	2
General Studies	3

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 or equivalent
- pre-admission interview and/or audition

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.

Semester 4 (30 hours/week)

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

Semester 5 (18 hours/week)	Credits
481-504 Scene Study 5 <i>Pre-Req:</i> 481-428 Scene Study 4	5
481-508 Voice 5 <i>Pre-Req:</i> 481-408 Voice 4	3
481-516 Audition	3
481-518 Movement 5 <i>Pre-Req:</i> 481-426 Movement 4	4
481-526 Mime 2 <i>Pre-Req:</i> 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
481-144 Carpentry 1	3
Communications 1	4
General Studies	3
Semester 2 (25 hours/week)	Credits
481-205 Costume 1	3
481-219 Lighting Technology 2 <i>Pre-Req:</i> 481-119 Lighting Technology 1	2
481-222 Stage Management 2 <i>Pre-Req:</i> 481-122 Stage Management 1	2
481-223 Drafting 2 <i>Pre-Req:</i> 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 <i>Pre-Req:</i> 481-144 Carpentry 1	3
Communications 2	4
General Studies	3

Semester 3 (27 hours/week)	Credits
481-302 Carpentry 3 <i>Pre-Req:</i> 481-249 Carpentry 2	3
481-319 Lighting Design 1 <i>Pre-Req:</i> 481-119 Lighting Technology 1	3
481-320 Scenic Painting 1 <i>Pre-Req:</i> 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 <i>Pre-Req:</i> 481-302 Carpentry 3	3
481-419 Lighting Design 2 <i>Pre-Req:</i> 481-319 Lighting Design 1	3
481-420 Scenic Painting 2 <i>Pre-Req:</i> 481-320 Scenic Painting 1	3
481-421 Set Design 2 <i>Pre-Req:</i> 481-321 Set Design 1	3
481-422 Costume Design 2 <i>Pre-Req:</i> 481-322 Costume Design 1	3
481-424 Sound 2 <i>Pre-Req:</i> 481-324 Sound 1	3
481-425 Apprenticeship 2 <i>Pre-Req:</i> 481-325 Apprenticeship 1	6
481-405 Properties 2 <i>Pre-Req:</i> 481-225 Properties 1	3

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

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

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 non-print media they must use.

A/V Techniques for PR 476-801

This course will examine the latest techniques in audio-visual presentations, and cover some of the more important developments expected in the future. There will be visits to A/V producers.

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 Counselling 122-316

A study of selected theories and models of counselling and the skills appropriate in specific human service programs and special needs populations.

Advanced Materials Applications 472-551

This course is a study of the latest developments in 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, prioritizing and time management). To acquire simple budgeting and bookkeeping skills. To develop information management skills, record keeping, statistics.

An Introduction to Computer Graphics and 2-Dimensional Computer-Aided Design 471-505

This introductory course consists of an overview of computer technology, computer-aided design applications and the fundamental operations of a computer-aided drafting system.

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 152-4

The course study will be concerned with the basic fundamentals of plants and their 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 153-4

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 botanical names of each plant discussed (Approximately 90 plants)

Applied Interpretation 151-3

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 1 112-1

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 2 112-2

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 152-5

A general study of plant pathology with an application of this theory to common diseases of woody and herba-

ceous 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 I (481-325).

Apprenticeship 3 481-525

Refer to course description of Apprenticeship I (481-325).

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 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.

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 continue his study of writing for large

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 and more portable forms such as furniture, easel painting, textiles and the like. Semester 2 examines Southern and Western Europe from the Gothic 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 course 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 of principles and purposes of assessment, methodology and specific assessment techniques.

Assessment, Planning & Recording 113-110

This course will deal with developing observation skills

in specific area, writing concise, effective reports and developing treatment plans and formulations.

Audio Recording Techniques 1 479-216

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 and alternating 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 of television reception are 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 type-written 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 direction 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 1 135-102

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 2 135-202

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 include physiological psychology, learning, intelligence, motivation, personality, adjustment, psychotherapy, abnormal psychology, sexual behaviour and social psychology.

Behavioural Foundations 1 113-202

A continuation of Behavioural Foundations 1.

Broadcast Internship 475-401

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 2 475-401

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 1 477-202

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 journalistic 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 2 477-202

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 3 477-202

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.

Broadcast Techniques 477-137

This general discussion course is composed of topics relating to new and everyday developments in the broadcasting industry.

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 conversationalist 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 477-601

This course goes hand-in-hand with Internship. The student's case study is a written report of not less than two thousand (2000) words describing the work environment and the duties performed during internship.

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.

Communications Theory 477-136

Canada has produced two of the world's great communication theorists, Harold Innis and Marshall McLuhan, plus a mixed private-public broadcasting system in two languages. In this course, the basic ideas of these two writers and their followers will be examined and discussed. The course will follow a seminar format, with student presentations weekly.

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 stylistic preferences. Semesters 3 & 4 are heavily weighted with theoretical topics in order to equip students with 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 Animation/Videotex

479-320

Students will adapt the skills acquired in two prerequisite courses to the field of animation. Basic principles of animation will be discussed in the context of "state-of-the-art" production techniques and will be applied to projects and

exercises in lab facilities. Students will explore the use of videotex systems to store and retrieve their portfolio.

Computer Basic, Introduction

479-120

The actual operation of microcomputers through hands-on exercises is an integral part of the course. Weekly topics covered with lectures and demonstrations require continual computer usage, thereby enabling audio visual students to further research computer resources and successfully complete assignments. By means of actual demonstrations and drills on the computer, students will create simple graphics in addition to executing the basic demands.

This course will provide the basis for further exploration in this field. Studies will continue with part 2 (course 479-220) Computer Design and (course 479-320) Computer Animation/Videotex. These courses will greatly expand the competence of the student in the application of computer technology in the communication process.

Computer Design

479-220

Students will explore the various applications of the computer in the creation of text and visuals to support audio-visual communication processes. Through exercises and projects to gain experience in using videotex hardware and software based on Telidon standards, students will be able to create and produce text, chart, graph, cartoon and freehand visuals. Students will store their visuals, recall them for modification, update and finalize them for an audio-visual presentation.

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. Student 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 for one of the projects listed below.

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.

Computers for PR

476-901

This course is to familiarize the student with various forms and uses of computers and other technological innovations in the PR and associated fields; to bring the student to the point where he/she be able to adapt quickly to the specific on-the-job equipment and procedures.

Construction Practices 1

152-5

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 responsible for all aspects of detailing, scheduling, pricing and ordering in addition to actual construction itself.

Contemporary Family

122-

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 problems and strategies and resources for support and change.

Cosmetic & Beauty Management 1

136-1

Students will learn the management skills required by the cosmetic industry. Emphasis 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

136-207

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

Cosmetic & Beauty Practice 1

136-109

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

136-208

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

Cosmetic Applications and Sales Techniques 1 135-101

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 2 135-201

Application sessions will alternate with lessons on salesmanship, effective demonstration and presentation techniques, promotional display, stock ordering, inventory control and marketing. Students will be involved in the operation of a cosmetic boutique on campus.

Cosmetic, Beauty and Health Theory 1 135-100

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 2 135-200

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.

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 pro-

fessionals, 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 Skills 1 113-514

This is an applied course in counselling with the focus primarily on interpersonal communication skills, including both listening and responding skills. Training will be conducted in class through a micro-lab format in which students will view video-taped helper-helpee interviews, in which various skills are modelled. As well, students will be required to practice the skills by alternating the roles of helper, helpee and observer.

Counselling Skills 2 113-607

A continuation of Counselling Skills 1.

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 pre-release 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 looks at 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 multiracial 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, sabatier effect, murals, multiple and double printing.

Design Applications
472-253

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 International
472-303

This Survey-type course explores the interaction between the industrial design profession and the external factors (such as economic and socio-political climate, cultural habits, geographic location, consumer preference, etc.) that contribute to successful industrial designs. The role that the designer plays in various cultures is also studied through case histories of internationally-renown practices and products.

Design Management
472-651

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
472-452

A course in advanced studio methods for Industrial Designers. Basic photographic theories are introduced and camera/lighting techniques are taught. 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 indepth 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 will include 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 composing 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 1 481-308

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 2 481-408

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-3 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-3 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.

Prerequisite: 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 & Detailing 6 473-607

Detailing of office partitioning and ceilings with regard to acoustics and fire separations is introduced. Problems are discussed on specifications, construction contracts, mechanical and electrical applications of ceilings, all as they relate to commercial design and based on a specific core problem.

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) 478-411

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

E.F.P. (TV Workshop) 478-311

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, and the aural

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.

Effective Speech 3 476-808

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 skill to speak with confidence in both vocational and social situations.

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 Advertising 243-110

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.

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.

Elements of FILM/TV 476-809

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.

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.

Elements of Research (PR) 476-900

This course will provide the fundamentals of research theory and practice as used for P.R. purposes.

Environmental 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 are 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 professional 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.

Ergonomics 472-554

A course in applied human physical measurement and dynamics as it relates to Industrial Design.

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 1 136-109

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 2 136-209

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

Fashion and Beauty Promotion 135-204

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 135-104

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 1 135-105

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 technology.

Fashion Industry Orientation 2 135-202

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 1 136-102

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 2 136-202

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

Fashion Modelling Cosmetic Practice 1 136-100

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 skin-care 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 2 136-200

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

Fashion Modelling Employment 1 136-103

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 2 136-203

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 communication 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, Bliss-symbolics, 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. Compensable 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 476-904

The student will work in industry for five days a week during the months of May and June after completing the first two semesters of the program. They will be required to attend the college for one morning every second week to make reports and engage in general discussion of their various on-the-job projects.

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 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.

Field Work 4 113-511

The student will spend three days a week in settings for children and adolescents with emotional problems. This will take place in residential treatment centres, group homes, therapeutic nurseries, schools, community centres, outpatient clinics, etc.

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.

Field Work 5 113-504
A continuation of Field Work 4 with the student remaining in the same agency.

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 film and 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/TV Directing 2 478-235

A continuation of Film/TV Directing 1, 478-135.

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 equipment 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 Practice 1 136-106

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 Practice 2 136-206

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. Learning 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.

Freehand Drawing 2 473-215

Freehand Drawing 2 utilizes the human figure and man-made objects; explores the essential areas of 2-dimensional design, form, line, shape 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 479-119

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 a mall 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 graphics 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 which the student should be proud of.

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 predominantly 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 studied (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 melodrama 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.

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.

Industrial Design 4 472-450

An intermediate course in the practice of Industrial Design skills learned in other subjects in the Industrial Design Program. The primary focus of this course is the application of skills in individual and group projects simulating real work environments involving some industry participation.

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.

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 problem-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.

Integrative Seminar 2 113-311

This seminar provides students with the opportunity to integrate theoretical course material with their own development as individuals and a child care worker, using their field work experiences as a focus. The class is problem-oriented, dealing with material brought by the students from their experiences in the field.

Integrative Seminar 3 113-305

A continuation of Integrative Seminar 2.

Integrative Seminar 4 113-404

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 experiences as a focus.

Integrative Seminar 5 113-503

A continuation of Integrative Seminar 4.

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 evaluation. 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 critique 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 critique 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 non-verbal 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 non-verbal 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.

Interviewing & Counselling Skills 123-226

A study of the structure and process of helping clients resolve their problems.

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 television 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 television productions.

Intro. to Advertising for PR 476-804

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 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 Graphics and 2-Dimensional Computer Aided Design 472-482

This introductory course includes an overview of computer technology and appli-

ications plus a basic working knowledge of a microcomputer based 2-dimensional computer aided drafting system.

Introduction to Computer Graphics and 2-Dimensional Computer-Aided Design
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.

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
476-802

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.

Journalism Seminar
475-107

Discussions of specialized activities and specific sectors of journalism, covering all news media are held during this course. Guest specialists conduct the seminars. Students research assigned weekly topics and prepare questions for discussion in class with the guest speaker. Students must demonstrate professional research ability and clear lines of reasoning in questions and comments and be able to summarize and report observations and findings, both in writing and in discussion.

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 1 476-803

This course is designed to give the student a basic knowledge of print production, design and layout.

Layout & Production for Print 2 476-903

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 in the 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 appropriate service, 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 lightreadings, 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 responsible for the publication of Magazine World, and for The Hummer 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) 1**137-198**

Major Instrument (Voice) 1-6 is a series of private voice lessons designed on a personal basis for each student, according to his or her individual needs. Emphasis will be placed on warmup routines, breathing, technical development, practice procedures and strategies, musicality of performance and performance techniques.

Major Instrument (Voice) 2**137-298**

Refer to 137-198.

Major Instrument (Voice) 3**137-398**

Refer to 137-198.

Major Instrument (Voice) 5**137-598**

Refer to 137-198.

Major Instrument (Voice) 6**137-698**

Refer to 137-198.

Major Instrument - Guitar**137-592**

Refer to 137-192.

Major Instrument - Guitar**137-692**

Refer to 137-192.

Major Instrument - Guitar**137-492**

Refer to 137-192.

Major Instrument - Guitar**137-392**

Refer to 137-192.

Major Instrument - Guitar**137-292**

Refer to 137-192.

Major Instrument - Keyboard**137-693**

Refer to 137-193.

Major Instrument - Keyboard**137-593**

Refer to 137-193.

Major Instrument - Keyboard**137-293**

Refer to 137-193.

Major Instrument - Keyboard**137-193**

These courses consist of 14 half hour private lessons per semester in keyboard. They are designed to offer a basic study of the essential concepts used by the professional keyboardist. Special emphasis will be placed on technique, sight reading, idiomatic studies, improvising skills, development of repertoire and strengthening of weak areas.

Major Instrument - Keyboard**137-393**

Refer to 137-193.

Major Instrument - Keyboard**137-493**

Refer to 137-193.

Major Instrument - Percussion**137-694**

Refer to 137-194.

Major Instrument - Percussion**137-194**

Major Instrument - Percussion is a course which stresses the continuing development of the student's performing capabilities in the areas of: technique, time, styles, reading, phrasing, ensemble and solo playing.

Major Instrument - Percussion 137-494
Refer to 137-194.

Major Instrument - Percussion 137-394
Refer to 137-194.

Major Instrument - Percussion 137-294
Refer to 137-194.

Major Instrument - Percussion 137-594
Refer to 137-194.

Major Instrument - Trombone 137-395
Refer to 137-195.

Major Instrument - Trombone 137-695
Refer to 137-195.

Major Instrument - Trombone 137-595
Refer to 137-195.

Major Instrument - Trombone 137-295
Refer to 137-195.

Major Instrument - Trombone 137-495
Refer to 137-195.

Major Instrument - Trombone 137-195
Six semesters of weekly 1/2 hour private lessons.

Major Instrument - Trumpet 137-296
Refer to 137-196.

Major Instrument - Trumpet 137-396
Refer to 137-196.

Major Instrument - Trumpet 137-496
Refer to 137-196.

Major Instrument - Trumpet 137-696
Refer to 137-196.

Major Instrument - Trumpet 137-196
This is a continuous six semester course comprised of 1/2 hour private lessons each week.

Major Instrument - Trumpet 137-596
Refer to 137-196.

Major Instrument - Woodwind 137-299
Refer to 137-199.

Major Instrument - Woodwind 137-699
Refer to 137-199.

Major Instrument - Woodwind 137-499
Refer to 137-199.

Major Instrument - Woodwind 137-199
These courses are comprised of 14 half hour private lessons each semester.

Major Instrument - Woodwind 137-599
Refer to 137-199.

Major Instrument - Woodwind 137-399
Refer to 137-199.

Major Instrument - Woodwind Performance 5 137-589
These courses are comprised of 14 half-hour private lessons each semester.

Major Instrument - Woodwind Performance 6 137-689
Refer to 137-589.

Major Instrument Performance - Keyboard 6 137-683
Refer to 137-583.

Major Instrument Performance - Keyboard 6 137-583
These courses consist of 14 one hour private lessons per semester in keyboard. They are designed to offer a detailed study of the essential concepts used by the professional keyboardist. Special emphasis will be placed on technique, sight reading, idiomatic skills, 'legit' playing, improvising skills, development of repertoire, strengthening of weak areas, and multi-tracking techniques.

Major Instrument Performance - Percussion 5 137-584
This course promotes an in-depth continuation of the development of the third year,

performing capabilities in Total Percussion - including Timpani, Mallets, miscellaneous percussion as well as drum set and Latin instruments. In addition, focus will be maintained on the Graduation Recital, from planning through to their performance.

Major Instrument Performance - Percussion 6 137-684
Refer to 137-584.

Major Instrument Workshop 1 137-101

This is a two semester course in which topics of common interest to singers 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 vocalists tend to share, and preparing the student to use his or her voice properly to prevent vocal abuse, fatigue or damage. The first semester will deal mainly with good technique. The second semester will apply these techniques through student performance of a variety of types of music such as "standard" jazz, rock, Latin, show and classical.

Major Instrument Workshop 2 137-201
Refer to course description of Major Instrument 1 (Voice) Workshop (137-101).

Major Instrument 1 - Bass 137-190
Private lessons of 1/2 hour a week on electric and/or string bass.

Major Instrument 2 - Bass 137-290
This course is comprised of private lessons of 1/2 hour a week for 14 weeks on electric and/or string bass.

Major Instrument 3 - Bass 137-390
This course is comprised of private lessons of 1/2 hour a week for 14 weeks on electric and/or string bass.

Major Instrument 4 - Bass 137-490

This course is comprised of private lessons of 1/2 hour a week for 14 weeks on electric and/or string bass.

Major Instrument 5 - Bass 137-590

This course is comprised of private lessons of 1/2 hour a week for 14 weeks on electric and/or string bass. Third year performance students will have an extra 1/2 hour lesson each week to develop assignments from solo performance class - see solo performance course outline for areas to be developed.

Major Instrument 6 - Bass 137-690

This course is comprised of private lessons of 1/2 hour a week for 14 weeks on electric and/or string bass. Third year performance students will have an extra 1/2 hour lesson each week to develop assignments from solo performance class - see solo performance course outline for areas to be developed.

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 its 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 redesigning of consumer goods packaging.

Marketing 1 (Retail Floriculture) 241-003

This course is designed to introduce the student to marketing and the marketing concept as practiced in business management. It will assist the student to develop a functional judgement of the role each of the controllable variables ("product", planning, pricing, promotion and place) plays in the Marketing Mix.

In the process, whenever practical, examples and analogies will be used which related to various aspects of interest in the field of Retail Floriculture. (Note: this course is a prerequisite for other marketing courses such as Marketing 2, Marketing Research, Marketing Administration, Retailing, Advertising, Salesmanship, Sales Management, Sales Promotion, as well as Flower Shop Promotion.

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. Lectures 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.

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 2 470-130

This course is an extension of Studio Methods 2 and designed to provide the stu-

dent 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, half-tone 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.

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 naturalism, 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 a group piece.

Modelling and Choreography Techniques 136-1

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 2 136-204

Refer to course description of Modelling and Choreography Techniques 1 (133-506).

Modelling For Fashion Photography 1 136-106

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 2 136-205

Refer to course description of Modelling For Fashion Photography 2 (133-507).

Modelmaking 1 472-154

A model making course for the Industrial Designer using hand tools, power tools, and woodworking machinery to form a variety of materials. Emphasis upon safety and 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 search for 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 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.

Op. 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 & 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 score. 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 condi-

tions 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.

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
471-504

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
471-106

This course is designed to familiarize the students with many of the materials used in the package design field (felt markers, various pencils, drafting tools, etc.) to teach them how to present a piece of design to a client, how to present themselves, simple studio costing and numerous other requirements for doing a good piece of saleable package design.

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 the 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 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
476-800

This course will examine the means of systematically influencing groups and individuals through persuasive communication.

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 for Graphics 1
470-106

Basic Photography for Graphics 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 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 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 "work-week". 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. 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, printing, 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 format 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 sit-

uation 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 copy right in Canada. Theory of filters and filter factors, per-

ceptual 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 this program. 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.

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 discussed with respect to established procedures in the film and television industry.

Practical PR 1 476-137

This course will examine the field of Public Relations and social responsibility, as practiced by professionals in the fields of non-profit organizations.

Practical PR 2 476-806

This course will consist of analyzing case histories, dis-

Discussing problems and solutions; thorough knowledge and practical applications of the specific tools, and media techniques of specialized P.R. for profit-making organizations.

Press Time 1 475-182

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 2 475-282

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 proof-reading. 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 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 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.

**Psychopathology of
Childhood 1****113-308**

This course will deal with the diagnosis, causes, classification and description of psychological disorders in childhood and adolescence.

**Psychopathology of
Childhood 2****113-407**

A continuation of Psychopathology 1.

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 smoothly with 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, recommenda-

tions, 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 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 judgments 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 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 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 and Lab 6**476-807**

Writing is the keynote of the PR program. Time is pro-

vided in a Lab situation for writing under supervision but a great deal of both research and writing will have to be done on the student's own time. All assignments must be submitted typewritten. News, magazine, govt. stories, business correspondence and reports will be covered.

PR Writing and Lab 7**476-902**

The student will practise more sophisticated applications of the basic PR writing skills learned in Writing and Lab 6, to cover such things as speech writing, background papers, presentations, advertising copy.

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 Drama 2**477-405**

This course promises the individual working skills required in the production of "on-air" plays. By actually

taking on the duties of a Radio Drama production crew, students learn to work with others and trade ideas and suggestions. This leads to the development of successful projects. This course requires active participation by every student.

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 Humbler'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 daily living, 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 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.

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, instructional, 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 will take this introduction 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.

Seminar 2 476-510
A continuation of Seminar 1, to give practice in organizing seminars. To research and discuss with a resource person profit making areas for P. R.

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 social-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.

Small Store Retailing (Floriculture) 247-010
This course concentrates on the planning and control factors that assist a manager to operate a successful retail business.

Social Interaction in Interpretation 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 clientele 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 clientele by understanding group dynamics, basic teaching principles and possible unique groups.

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.

Solo Performance 3 137-332
This course is designed to prepare the student, who

chooses the performance pathway, for his 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's 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 acquire 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 help the 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 2 478-306

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.) 739-113

This course, required for students in the Rehabilitation Worker program, 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.

Studio Methods 1 470-111

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 mechanical art. 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 2 470-211

Having satisfactorily completed Studio Methods 1 the student will develop further with projects that cover; methods of reproduction, key line colour separation, embossing, water-colour rendering, die line drawings, operation of the photostat camera and the Luci.

Styling For Fashion Photography 1 136-110

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 2 136-210

Refer to course description of Styling For Fashion Photography 1 (133-553).

Super 8 Production Workshop 2 478-201

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 together 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 relations; 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 color 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, mid-

dle 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.

Thesis 2
472-653

Thesis 2 is a continuation of Thesis 1 where the student completes the project tasks identified and approved in Thesis 1.

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 mathematical 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 Practice 2 610-312

This is a further composite practical course consisting of the following areas of study: turf maintenance procedures ranging from residential to golf course levels; the installation of annuals, perennials, bulbs, corms and tubers; the mixing, placing and finishing of concrete asphalt application typical to the landscape industry; grading, packaging and shipping of plant material; grading and compaction for the landscape industry; the use and maintenance of fine turf maintenance equipment and the maintenance of all features found on a typical golf course.

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 occurring in 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.

Trade Theory 2 610-313

This is a further composite theory course consisting of the following areas of study: the proper nomenclature, cultural requirements and characteristics of additional typical landscape plants in Ontario; the study of maintenance requirements of turf and landscape plants in Ontario; the study of the major types of greenhouses; the interpretation of building codes and bylaws and other restrictions as they affect the landscape industry; St. Johns Ambulance first aid; the preparation of simple landscape design plans at residential scale; the identification and control of common insect pests; the identification of turf grass species and their cultural requirements particularly in golf course applications; irrigation design theory and golf course renovation, including layout, soil mixing, and drainage features.

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.

Turf Management 152-520

Refer to course description of Turf Management I (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 Morgen-

thaler-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 1 136-101

On camera instruction will include voice training and movement necessary for a professional performance. Students will learn 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 2 136-201

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 insert 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 Sociology 123-118

This course will provide students with a basic understanding of sociological principles and their relevance to contem-

porary 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 listen 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 training 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 1 135-103

A course designed in two parts to provide students with the knowledge of the organization, management and mar-

keting 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 2 135-203

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, buying 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 broadcast-

ing. 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

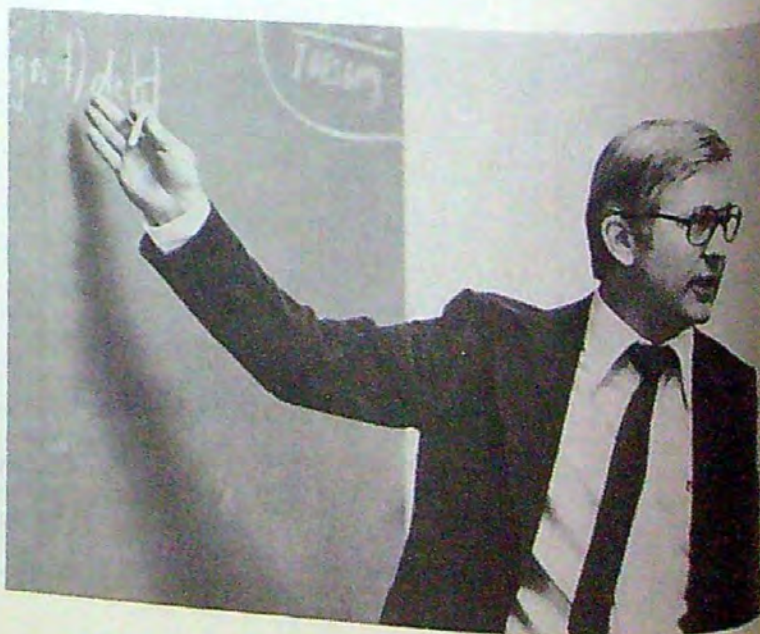
This course marks the change from projects which related to two-dimensional graphics and package designs, to the three-dimensional design demands of cartons, bottles, cans and other containers found in the supermarkets and chain stores.

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.

Descriptions for Communications and General Studies courses can be found in the Human Studies section, beginning on page 154.

Business



Accountancy Diploma***

Curriculum

2-Year Accounting Diploma

Semester 1	Credits
21-011 Intro. to Accounting 1	4
351-020 Personnel	3
33-035 Elements of Information Systems	4
341-010 Marketing 1	4
926-121 Microeconomics	3
Communications 1	4
General Studies	3
Semester 2	Credits
21-111 Intro. to Accounting 2	4
Pre-Req: 221-011 Intro. to Accounting 1	
381-010 Business Mathematics*	4
333-170 Elements of Systems	4
Pre-Req: 233-035 Elements of Information Systems	
926-221 Macroeconomics	3
Communications 2	4
General Studies	3
Semester 3	Credits
225-210 Cost Accounting 1	4
Pre-Req: 221-111 Intro. to Accounting 2	
223-214 Intermediate Accounting 1**	8
Pre-Req: 221-111 Intro. to Accounting 2	
354-040 Elements of Law 1	3
251-120 Organizational Management 1	3
Pre-Req: 251-020 Personnel	
283-110 Business Statistics	4
Pre-Req: 281-010 Business Mathematics*	
Semester 4	Credits
225-310 Cost Accounting 2*	6
Pre-Req: 225-210 Cost Accounting 1	
223-313 Intermediate Accounting 2*	6
Pre-Req: 223-214 Intermediate Accounting 1**	
228-712 Income Tax 1	4
Pre-Req: 223-214 Intermediate Accounting 1**	
251-220 Organizational Management 2	3
Pre-Req: 251-120 Organizational Management 1	
General Studies	3

*Equivalent to 1 1/2 courses **Equivalent to 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

North and Lakeshore Campuses

English both at the general level or equivalent

NOTE: mathematics assessment test after admission will enable the Division to place students at their appropriate level

Four semesters starting September or

Six semesters starting 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 or equivalent (or completion of the Accountancy Assistant Certificate program at Keeleisdale campus of Humber College)
 • grade 12 academic or commercial mathematics and grade 12

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 an C.M.A.A. (Certified Management Accountant) as the respective accounting associations will allow credits from this program toward their professional designations.

Semester 5	Credits
281-110 Quantitative Analysis 1	4
Pre-Req: 281-010 Business Mathematics*	
228-715 Income Tax 2	4
Pre-Req: 228-712 Income Tax 1	
234-580 Small Business Computer Applications	4
223-715 Financial Controllorship 1	4
Pre-Req: 223-313 Intermediate Accounting 2*	
224-411 Advanced Financial Accounting 1	4
Pre-Req: 223-313 Intermediate Accounting 2*	
Semester 6	Credits
227-410 Auditing	4
Pre-Req: 223-313 Intermediate Accounting 2*	
221-150 Computerized Accounting	4
Pre-Req: 234-580 Small Business Computer Applications	
223-725 Financial Controllorship 2	4
Pre-Req: 223-715 Financial Controllorship 1	
225-511 Advanced Accounting 2**	8
Pre-Req: 224-411 Advanced Financial Accounting 1	
General Studies	3

Applications. Successful graduates will receive additional credits towards receiving their professional designation.

An Introduction to Management Studies

The Management Studies Diploma Programs at Humber College provide 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, in addition to the regular option, options in Operations Management, and Marketing Management. Students interested in the Computer Information Management Diploma refer to 216. The General Business Diploma Program (25 courses, two years, four semesters) offers options in the following areas:

Business Management
Personnel Management
Legal Assistant
Approved Specialized Areas

Since both these programs generally provide a common core of required business courses in the first two semesters, transfers in the first year from program to program, if handled with proper consultation, can be achieved relatively easily.

The following options are available:

(A) The student may enter at the first-semester level into the Business Administration Diploma program, with the goal of attaining the three-year diploma. The student may, however, in consultation with a Management Studies Program Coordinator, change programs at an appropriate time, and elect to graduate after two years with the General Business Diploma in one of the recognized options, or may choose to enter another Business Program. The student should be aware that following this option might entail picking up additional courses.

(B) The student may enter at the first-semester level into the General Business Diploma program and graduate after two years in a recognized option.

(C) The student may enter at the first-semester level into the General Business Diploma program, and at an appropriate time, in consultation with the appropriate Program Coordinators, transfer to one of the other Business Division Diploma Programs (Accounting, Marketing, etc.). The student should be aware that following this option might entail picking up additional courses in professionally related areas.

(D) After graduating from a two-year Business Diploma program, a student may enter into the third year (semester 5) of the Business Administration Diploma Program. The student should be aware that this option will entail picking up additional courses in professionally related areas.

(E) The student may enter at levels higher than first semester, upon receiving advanced standing for courses completed in Grade 13, at another College of Applied Arts & Technology or at University with prior academic counselling from Management Studies Program Coordinator. The student may enter either the General Business or the Business Administration Diploma Program at the determined level. It must be emphasized that proper and timely academic counselling by a Management Studies Program Coordinator is important in all of the above options.

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
Business Management Certificate
General Business Certificate
Operations Management Certificate
Personnel Management Certificate

These certificate programs would be of interest to people currently within the industry, or for the more mature person wishing to gain entrance to this field and other business programs on a part-time basis.

For further information, please consult the Continuous Learning brochure, or call 675-5016 or 252-5571.

Business Administration Diploma*

Curriculum

Semester 1	Credits
251-020 Personnel	3
241-010 Marketing 1	4
221-011 Intro. to Accounting 1	4
926-121 Microeconomics	3
233-035 Elements of Information Systems Communications 1	4
Semester 2	Credits
254-040 Elements of Law 1	3
281-010 Business Mathematics*	4
241-110 Marketing 2 <i>Pre-Req:</i> 241-010 Marketing 1	4
221-111 Intro. to Accounting 2 <i>Pre-Req:</i> 221-011 Intro. to Accounting 1	4
926-221 Macroeconomics Communications 2	4

*Math Assessment Test score of 65% or higher OR Basic Business Math 281-001 with 60% or higher

North Campus

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 <i>Pre-Req:</i> 221-111 Intro. to Accounting 2	4
251-120 Organizational Management 1 <i>Pre-Req:</i> 251-020 Personnel	3
234-581 Personal Computing 1 <i>Pre-Req:</i> 233-035 Elements of Information Systems	3
283-110 Business Statistics <i>Pre-Req:</i> 281-010 Business Mathematics*	4
General Studies	3
Plus one of:	
926-301 International Economics <i>Pre-Req:</i> 926-221 Macroeconomics	4
926-302 Money, Banking & Finance <i>Pre-Req:</i> 926-221 Macroeconomics	4
926-303 Economic Development <i>Pre-Req:</i> 926-221 Macroeconomics	4

North and Lakeshore Campuses

Six Semesters Beginning September

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.

Admission Requirements

- Ontario Secondary School Diploma or equivalent, or mature student status
- aptitude test may be required
- grade 12 academic or commercial mathematics, grade 12 English composition courses at the general level or equivalent

Note: A mathematics assessment test after admission will enable the Division to place students at their appropriate 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.

Students interested in the Computer Information System Management Diploma please refer to 216.

Semester 4	Credits
251-220 Organizational Management 2 <i>Pre-Req:</i> 251-120 Organizational Management 1	3
233-170 Elements of Systems <i>Pre-Req:</i> 233-035 Elements of Information Systems	4
252-010 Manufacturing Operations <i>Pre-Req:</i> 281-010 Business Mathematics*	4
Business Elective	4
General Studies	3

Plus one of:

926-301 International Economics <i>Pre-Req:</i> 926-221 Macroeconomics	4
926-302 Money, Banking & Finance <i>Pre-Req:</i> 926-221 Macroeconomics	4
926-303 Economic Development <i>Pre-Req:</i> 926-221 Macroeconomics	4

Semester 5	Credits
252-310 Business Policy 1 <i>Pre-Req:</i> 223-212 Managerial Accounting	4
281-110 Quantitative Analysis 1 <i>Pre-Req:</i> 281-010 Business Mathematics*	4
General Studies	3
3 Business Electives	12

Semester 6		Credits
252-510 Business Policy 2		4
<i>Pre-Req:</i> 252-310 Business Policy 1, 223-212 Managerial Accounting		
253-810 Personnel Mgmt. & Development		4
<i>Pre-Req:</i> 251-220 Organizational Management 2		
223-713 Corporate Finance		4
<i>Pre-Req:</i> 223-212 Managerial Accounting, 223-214 Intermediate Accounting 1**		
281-210 Quantitative Analysis 2		4
<i>Pre-Req:</i> 281-110 Quantitative Analysis 1		
241-811 Advanced Marketing Admin.		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.

Semester 3		Credits
283-110 Business Statistics		4
<i>Pre-Req:</i> 281-010 Business Mathematics*		
223-212 Managerial Accounting		4
<i>Pre-Req:</i> 221-111 Intro. to Accounting 2		
251-120 Organizational Management 1		3
<i>Pre-Req:</i> 251-020 Personnel		
234-581 Personal Computing I		3
<i>Pre-Req:</i> 233-035 Elements of Information Systems		
243-110 Elements of Advertising		4
<i>Pre-Req:</i> 241-010 Marketing 1		
General Studies		3
Semester 4		Credits
233-170 Elements of Systems		4
<i>Pre-Req:</i> 233-035 Elements of Information Systems		
251-220 Organizational Management 2		3
<i>Pre-Req:</i> 251-120 Organizational Management 1		
241-111 Marketing Research		4
<i>Pre-Req:</i> 241-110 Marketing 2		
252-010 Manufacturing Operations		4
<i>Pre-Req:</i> 281-010 Business Mathematics*		
General Studies (2)		6

Curriculum

Semester 5		Credits
245-010 Salesmanship		4
252-310 Business Policy 1		4
<i>Pre-Req:</i> 223-212 Managerial Accounting		
281-110 Quantitative Analysis 1		4
<i>Pre-Req:</i> 281-010 Business Mathematics*		
241-211 Marketing Research 2		4
<i>Pre-Req:</i> 241-111 Marketing Research		
OR		
241-710 Physical Distribution		4
247-014 Fundamentals of Retailing 1		4
<i>Pre-Req:</i> 241-010 Marketing 1		
OR		
243-211 Advanced Advertising		4
<i>Pre-Req:</i> 243-110 Elements of Advertising		
General Studies		3

Semester 6		Credits
233-275 Computer Applic. in Marketing		4
<i>Pre-Req:</i> 233-170 Elements of Systems		
241-811 Advanced Marketing Admin.		4
252-510 Business Policy 2		4
<i>Pre-Req:</i> 252-310 Business Policy 1, 223-212 Managerial Accounting		
253-810 Personnel Mgmt. & Development		4
<i>Pre-Req:</i> 251-220 Organizational Management 2		
223-713 Corporate Finance		4
<i>Pre-Req:</i> 223-212 Managerial Accounting, 223-214 Intermediate Accounting 1**		
241-812 Export Marketing		4
<i>Pre-Req:</i> 241-110 Marketing 2		
OR		
245-110 Sales Management		4
<i>Pre-Req:</i> 245-010 Salesmanship		
OR		
247-015 Fundamentals of Retailing 2		4
<i>Pre-Req:</i> 247-014 Fundamentals of Retailing 1		
OR		
241-113 Marketing of Microcomputers		4
<i>Pre-Req:</i> 241-010 Marketing 1		

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, 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 electives with the following microsystem courses:

Curriculum

Semester	Credits
233-045 Micro Fundamentals	4
231-045 Programming 1, Micro <i>Pre-Req:</i> 233-035 Elements of Information Systems	4
233-147 Micro Systems Analysis 1 <i>Pre-Req:</i> 231-045 Programming 1, Micro, 233-035 Elements of Information Systems	4
231-246 Comparative Languages 1 <i>Pre-Req:</i> 231-045 Programming 1, Micro	4
233-145 Automated Office Management <i>Pre-Req:</i> 233-045 Micro Fundamentals	4
233-347 Micro Applications <i>Pre-Req:</i> 231-246 Comparative Languages 1, 233-147 Micro Systems Analysis 1	4
233-349 Data Base Management Systems 1 <i>Pre-Req:</i> 231-045 Programming 1, Micro	4
233-350 Data Base Management 2 <i>Pre-Req:</i> 233-349 Data Base Management Systems 1, 231-246 Comparative Languages 1	4

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 <i>Pre-Req:</i> 221-111 Intro. to Accounting 2	4
251-120 Organizational Management 1 <i>Pre-Req:</i> 251-020 Personnel	3
234-581 Personal Computing 1 <i>Pre-Req:</i> 233-035 Elements of Information Systems	3
283-110 Business Statistics <i>Pre-Req:</i> 281-010 Business Mathematics*	4
252-010 Manufacturing Operations <i>Pre-Req:</i> 281-010 Business Mathematics*	4
General Studies	3

Semester 4	Credits
251-220 Organizational Management 2 <i>Pre-Req:</i> 251-120 Organizational Management 1	3
233-170 Elements of Systems <i>Pre-Req:</i> 233-035 Elements of Information Systems	4
291-015 Methods Improvement <i>Pre-Req:</i> 252-010 Manufacturing Operations	4
291-010 Principles of Purchasing	4
General Studies	3

Semester 5	Credits
252-310 Business Policy 1 <i>Pre-Req:</i> 223-212 Managerial Accounting	4
291-016 Work Measurement <i>Pre-Req:</i> 252-010 Manufacturing Operations	4
291-011 Production Inventory & Management <i>Pre-Req:</i> 281-010 Business Mathematics*	4
241-710 Physical Distribution	4
281-110 Quantitative Analysis 1 <i>Pre-Req:</i> 281-010 Business Mathematics*	4
General Studies	3

Semester 6	Credits
252-510 Business Policy 2 <i>Pre-Req:</i> 252-310 Business Policy 1, 223-212 Managerial Accounting	4
253-810 Personnel Mgmt. & Development <i>Pre-Req:</i> 251-220 Organizational Management 2	4
241-811 Advanced Marketing Admin.	4
223-713 Corporate Finance <i>Pre-Req:</i> 223-212 Managerial Accounting, 223-214 Intermediate Accounting 1**	4
291-014 Facilities Planning <i>Pre-Req:</i> 291-011 Production Inventory & Management	4
General Studies	3

Commercial Studies

Keelestdale Campus

Basic introductory commercial courses are available starting any Monday.

Full or part-time timetables can be arranged to suit most needs.

Students may plan a mix of courses from bookkeeping, typing, automated accounting, word processing, dicta, office procedures and communications.

Various certificates may be earned such as Accounting Assistant, Clerk Typist or Dicta Typist.

Admission Requirements

- applicants must be 19 years old
- at least two years of Ontario Secondary School education (with credits in both math and English) or equivalent
- placement testing is available



Computer Information Systems Diploma

North Campus

Regular Option

Six semesters beginning September. (Optional graduation after 4 semesters)

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 Option (Eight Semesters)

Students who maintain a 70% average may apply for this co-op option 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 or equivalent or mature student status
- Grade 12 academic or commercial mathematics, grade 12 English composition course or equivalent at the general level

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 <i>Pre-Req: 251-020 Personnel</i>	3
221-112 Accounting Concepts 2 <i>Pre-Req: 221-012 Accounting Concepts 1</i>	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.**

Note: A mathematics assessment test will be given to accepted students to place them at their appropriate level.

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 opt out with a 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.

Semester 3	Credits
231-710 Cobol 1 <i>Pre-Req:</i> 231-151 Programming Fundamentals	4
234-270 System Control Functions <i>Pre-Req:</i> 233-025 Introduction to Information Systems	4
251-220 Organizational Management 2 <i>Pre-Req:</i> 251-120 Organizational Management 1	3
254-040 Elements of Law 1	3
232-170 Intro to Systems Analysis 1 <i>Pre-Req:</i> 233-025 Introduction to Information Systems	4
234-581 Personal Computing 1 <i>Pre-Req:</i> 233-035 Elements of Information Systems	3
General Studies	3
Semester 4	Credits
283-110 Business Statistics <i>Pre-Req:</i> 281-010 Business Mathematics*	4
231-410 Cobol 2 <i>Pre-Req:</i> 231-710 Cobol 1	4
232-810 Data Base <i>Pre-Req:</i> 231-710 Cobol 1	4
232-270 Intro. to Systems Analysis 2 <i>Pre-Req:</i> 232-170 Intro to Systems Analysis 1	4
926-121 Microeconomics	3
234-582 Personal Computing 2 <i>Pre-Req:</i> 234-581 Personal Computing 1	4
***Footnote: Students opting out after two years must take a general studies elective instead of Microeconomics in their fourth semester.	
231-300 Co-op Work Term	4
Semester 5	Credits
252-412 Organizational Communications <i>Pre-Req:</i> 251-120 Organizational Management 1	4
231-415 4th Generation Languages <i>Pre-Req:</i> 231-710 Cobol 1	4
232-373 Structured Systems Analysis <i>Pre-Req:</i> 232-270 Intro. to Systems Analysis 2	4

232-371 Comparative Systems <i>Pre-Req:</i> 232-270 Intro. to Systems Analysis 2	4
232-572 Systems Structure and Mgmt. <i>Pre-Req:</i> 232-270 Intro. to Systems Analysis 2	4
232-472 Project Management <i>Pre-Req:</i> 232-270 Intro. to Systems Analysis 2	4
231-500 Co-op Work Term	4

Semester 6	Credits
231-552 Applied Programming Methodology <i>Pre-Req:</i> 231-410 Cobol 2	4
232-815 Data Base Admin. and Design <i>Pre-Req:</i> 232-810 Data Base	4
232-573 System Audit, Control and Security <i>Pre-Req:</i> 232-270 Intro. to Systems Analysis 2, 221-012 Accounting Concepts 1	4
231-291 Assembler 1 <i>Pre-Req:</i> 231-151 Programming Fundamentals	4
234-470 Network Design and Architecture <i>Pre-Req:</i> 231-710 Cobol 1	4
General Studies	3

Management Systems 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 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.

Semester 1 & 2 - Same as Regular Option

Semester 3	Credits
232-170 Intro to Systems Analysis 1 <i>Pre-Req:</i> 233-025 Introduction to Information Systems	4
254-040 Elements of Law 1	3
241-110 Marketing 2 <i>Pre-Req:</i> 241-010 Marketing 1	4
283-110 Business Statistics <i>Pre-Req:</i> 281-010 Business Mathematics*	4
926-121 Microeconomics	3
234-581 Personal Computing 1 <i>Pre-Req:</i> 233-035 Elements of Information Systems	3
General Studies	3

Semester 4	Credits
232-270 Intro. to Systems Analysis 2	4
<i>Pre-Req:</i> 232-170 Intro to Systems Analysis 1	
231-710 Cobol 1	4
<i>Pre-Req:</i> 231-151 Programming Fundamentals	
223-212 Managerial Accounting	4
<i>Pre-Req:</i> 221-111 Intro. to Accounting 2	
251-220 Organizational Management 2	3
<i>Pre-Req:</i> 251-120 Organizational Management 1	
234-582 Personal Computing 2	4
<i>Pre-Req:</i> 234-581 Personal Computing 1	
241-810 Marketing Administration	4
<i>Pre-Req:</i> 281-010 Business Mathematics*, 221-011 Intro. to Accounting 1, 241-111 Marketing Research, 926-121 Microeconomics	
Communications 2	4
Semester 5	Credits
232-573 System Audit, Control and Security	4
<i>Pre-Req:</i> 232-270 Intro. to Systems Analysis 2, 221-012 Accounting Concepts 1	
232-572 Systems Structure and Mgmt.	4
<i>Pre-Req:</i> 232-270 Intro. to Systems Analysis 2	

232-472 Project Management	4
<i>Pre-Req:</i> 232-270 Intro. to Systems Analysis 2	
252-010 Manufacturing Operations	4
<i>Pre-Req:</i> 281-010 Business Mathematics*	
252-310 Business Policy 1	4
<i>Pre-Req:</i> 223-212 Managerial Accounting	
General Studies	3
Semester 6	Credits
232-373 Structured Systems Analysis	4
<i>Pre-Req:</i> 232-270 Intro. to Systems Analysis 2	
231-415 4th Generation Languages	4
<i>Pre-Req:</i> 231-710 Cobol 1	
232-371 Comparative Systems	4
<i>Pre-Req:</i> 232-270 Intro. to Systems Analysis 2	
233-713 Corporate Finance	4
<i>Pre-Req:</i> 223-212 Managerial Accounting	
252-510 Business Policy 2	4
<i>Pre-Req:</i> 252-310 Business Policy 1, 223-212 Managerial Accounting	
253-810 Personnel Mgmt. & Development	4
<i>Pre-Req:</i> 251-220 Organizational Management 2	

*Co-op work terms currently not available with this option.

Computer Programming

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 or equivalent
- aptitude test may be required

Curriculum

Same as semesters 1, 2, 4 and 6 on the following pages (Computer Co-op).

- grade 12 academic or commercial mathematics, grade 12 English composition courses at the general level or equivalent

Note: a mathematics assessment test after admission will allow the Division to place students at their appropriate level.

Descriptions for Communications and General Studies courses can be found in the Human Studies section, beginning on page 154.

Computer Programming Co-op Diploma

Curriculum

Semester 1	Credits
234-025 Introduction to Information Systems	4
234-151 Programming Fundamentals	4
234-031 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	4
Pre-Req: 231-151 Programming Fundamentals	
232-170 Intro to Systems Analysis 1	4
Pre-Req: 233-025 Introduction to Information Systems	
234-270 System Control Functions	4
Pre-Req: 233-025 Introduction to Information Systems	
221-112 Accounting Concepts 2	4
Pre-Req: 221-012 Accounting Concepts 1	
231-020 Personnel	3
234-581 Personal Computing 1	3
Pre-Req: 233-035 Elements of Information Systems	
General Studies	3

Semester 3	Credits
233-300 Co-op Work Term	4

Semester 4	Credits
231-410 Cobol 2	4
Pre-Req: 231-710 Cobol 1	
232-810 Data Base	4
Pre-Req: 231-710 Cobol 1	
232-270 Intro. to Systems Analysis 2	4
Pre-Req: 232-170 Intro to Systems Analysis 1	
281-10 Business Statistics	4
Pre-Req: 281-010 Business Mathematics*	
Communications 2	4
General Studies	3

Semester 5	Credits
233-500 Co-op Work Term	4

Semester 6	Credits
231-200 RPG 2	4
Pre-Req: 233-025 Introduction to Information Systems	
234-582 Personal Computing 2	4
Pre-Req: 234-581 Personal Computing 1	

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 or equivalent, plus two years of business experience or
 - mature student status; program interview, grade 12 academic or commercial mathematics, grade 12 English composition courses at the general level or equivalent
- Note: a mathematics assessment test is required to place accepted students at their appropriate 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.

234-470 Network Design and Architecture	4
Pre-Req: 231-710 Cobol 1	
234-570 Program Products Seminar	2
Pre-Req: 232-270 Intro. to Systems Analysis 2	
232-573 System Audit, Control and Security	4
Pre-Req: 232-270 Intro. to Systems Analysis 2, 221-012 Accounting Concepts 1	
232-815 Data Base Admin. and Design	4
Pre-Req: 232-810 Data Base	
231-552 Applied Programming Methodology	4
Pre-Req: 231-410 Cobol 2	

Executive Secretary Diploma

Curriculum

Semester 1	Credits
Minimum keyboarding speed of 30 nwpm (40 gwpm) Shorthand: Nil is required to enter first semester	
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
Requirements for Direct Entry: Keyboarding 45 nwpm (50 gwpm), Shorthand: 60 wpm	
261-269 Executive Office Simulations 1 <i>Pre-Req:</i> 262-215 Simulated Office Environment 1	8
262-768 Executive Shorthand 1 <i>Pre-Req:</i> 262-005 Notetaking for Business	4
268-018 Word Processing Fundamentals	4
Communications 1	4
General Studies	3
Semester 3	Credits
261-273 Executive Office Procedures 2	6
264-043 Executive Machine Trans. 2	2
262-766 Executive Shorthand 2	4
268-118 Word Processing Advanced <i>Pre-Req:</i> 268-018 Word Processing Fundamentals	4
Communications 2	4
General Studies	3

North Campus

Four semesters beginning September and January

This program provides training in the specialized secretarial and administrative procedures required to assume the role of executive secretary or administrative assistant to a business executive. In addition to developing skills in shorthand, machine transcription, keyboarding and word processing, emphasis is placed on developing the analytical, problem-solving and decision-making competencies required to support the management team.

Admission Requirements

- Ontario Secondary School Diploma or equivalent

- grade 12 English (general level)
- minimum keyboarding speed of 30 nwpm (40 gwpm) is required to enter first semester

For direct entry into semester 2, please refer to the requirements stated in the curriculum. For further information contact the Program Coordinator.

Job Opportunities

Graduates may look for a rewarding career in government, private industry, business or the professions.

Graduation Requirements

An overall average of 60% in final year.

Semester 4

	Credits
264-045 Executive Office Simulations 3 <i>Pre-Req:</i> 261-273 Executive Office Procedures 2, 264-043 Executive Machine Trans. 2, 262-766 Executive Shorthand 2	10
261-470 Office Administration Procedures	4
233-060 D.P. Office Systems	4
General Studies (2)	6

General Business Diploma

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
241-010 Marketing I	4
254-040 Elements of Law 1	3
221-011 Intro. to Accounting 1	4

North and Lakeshore Campuses

Four semesters beginning September.

The General Business program offers students a basic business education with emphasis on the development of practical skills for employment at the basic levels of a

business career.

The program also offers the opportunity to specialize in the following areas: Business Management, Personnel Management, Legal Assistant and approved specialized areas.

34-121	Microeconomics	3
	Communications 1	4
	General Studies	3
Semester 2		
31-120	Organizational Management 1	3
<i>Pre-Req:</i>	251-020 Personnel	
31-010	Business Mathematics*	4
34-035	Elements of Information Systems	4
	Communications 2	4
	General Studies*	6

After semester two, students choose one of the following options:

Business Management option	
Personnel Management option	
Legal Assistant option	
Approved Specialized option	

Admission Requirements

Students must be interested in a service-oriented career.
 Note: A mathematics assessment test will be given to accepted students to place them at their appropriate level.

- Ontario Secondary School Diploma or equivalent
- aptitude test may be required
- grade 12 academic or commercial mathematics, grade 12 English composition course at the general level or equivalent.

* Math Assessment Test score of 65% or higher OR Basic Business Math 281-001 with 60% or higher Approved Specialized Options. There are circumstances where students have particular management training requirements. Therefore, a tailored program may be structured with the assistance of the program coordinator from a wide variety of credit courses offered by the College. All specialized options must be approved by the Chairman.

General Business Diploma **

Business Management Option

This option eventually leads graduates to supervisory and management positions in businesses and industry. Entry-level jobs are at a more junior level.

You may wish to take this option to obtain a general management background and slightly tailor your program by your choice of electives.

Semester 3		
251-220	Organizational Management 2	3
<i>Pre-Req:</i>	251-120 Organizational Management 1	
283-110	Business Statistics	4
<i>Pre-Req:</i>	281-010 Business Mathematics*	
232-010	Manufacturing Operations	4
<i>Pre-Req:</i>	281-010 Business Mathematics*	
235-170	Elements of Systems	4
<i>Pre-Req:</i>	233-035 Elements of Information Systems	
221-111	Intro. to Accounting 2	4
<i>Pre-Req:</i>	221-011 Intro. to Accounting 1	
	General Studies	3

Semester 4		
241-110	Marketing 2	4
<i>Pre-Req:</i>	241-010 Marketing 1	
234-581	Personal Computing 1	3
<i>Pre-Req:</i>	233-035 Elements of Information Systems	
252-412	Organizational Communications	4
<i>Pre-Req:</i>	251-120 Organizational Management 1	
926-221	Macroeconomics	3
	2 Business Electives	8

General Business Diploma Business Elective
 courses offered in 3rd, 4th and 5th semesters if sufficient demand exists

Business Electives:		
251-011	Small Business Management	4
<i>Pre-Req:</i>	251-020 Personnel	
252-412	Organizational Communications	4
<i>Pre-Req:</i>	251-120 Organizational Management 1	
291-010	Principles of Purchasing	4
253-113	Elements of Salary Compensation	4
<i>Pre-Req:</i>	251-020 Personnel	
253-111	Labour Relations	4
<i>Pre-Req:</i>	251-020 Personnel	

281-110 Quantitative Analysis 1 <i>Pre-Req:</i> 281-010 Business Mathematics*	4
234-582 Personal Computing 2 <i>Pre-Req:</i> 234-581 Personal Computing 1	4
Labour Relations 2 <i>Pre-Req:</i> 253-111 Labour Relations	4
233-042 Human Resources Computer Applications <i>Pre-Req:</i> 233-035 Elements of Information Systems	4
233-042 Human Resources Computer Applications <i>Pre-Req:</i> 251-020 Personnel	

Personnel Management Option

Graduates generally do not receive positions directly in the personnel area of organizations but in departments which, with some additional in-house training, eventually

lead to personnel positions. Career goals for these graduates are in the areas of in-house training, program supervision, benefits management, employment interviews, and labour contract administration.

Curriculum

Semester 3	Credits
251-220 Organizational Management 2 <i>Pre-Req:</i> 251-120 Organizational Management 1	3
253-113 Elements of Salary Compensation <i>Pre-Req:</i> 251-020 Personnel	4
283-110 Business Statistics <i>Pre-Req:</i> 281-010 Business Mathematics*	4
252-010 Manufacturing Operations <i>Pre-Req:</i> 281-010 Business Mathematics*	4
Business Elective	4
General Studies	3
Semester 4	Credits
253-810 Personnel Mgmt. & Development <i>Pre-Req:</i> 251-220 Organizational Management 2	4
253-114 Elements of Pension Plans & Group Insurance <i>Pre-Req:</i> 251-020 Personnel	4
253-111 Labour Relations <i>Pre-Req:</i> 251-020 Personnel	4
252-412 Organizational Communications <i>Pre-Req:</i> 251-120 Organizational Management 1	4
2 Business Elective	8

North Campus

Legal Assistant Option

Legal Assistant graduates are hired by organizations such as large legal firms, government departments and their agencies, life and general insurance companies and trust companies. Their duties gen-

erally 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 3	Credits
251-220 Organizational Management 2 <i>Pre-Req:</i> 251-120 Organizational Management 1	3
254-122 Real Estate 1 <i>Pre-Req:</i> 254-040 Elements of Law 1	4
254-126 Family Law <i>Pre-Req:</i> 254-040 Elements of Law 1	4
253-113 Elements of Salary Compensation <i>Pre-Req:</i> 251-020 Personnel	4
254-128 Court Procedures <i>Pre-Req:</i> 254-040 Elements of Law 1	4
General Studies	3
Semester 4	Credits
254-123 Real Estate 2 <i>Pre-Req:</i> 254-122 Real Estate 1	4
254-124 Will & Intestate <i>Pre-Req:</i> 254-040 Elements of Law 1	4
258-020 Basic General Insurance <i>Pre-Req:</i> 254-040 Elements of Law 1	4
254-129 Criminal Litigation <i>Pre-Req:</i> 254-128 Court Procedures	4
253-111 Labour Relations <i>Pre-Req:</i> 251-020 Personnel	4
General Studies	3

Approved Specialized Options

There are circumstances where students have particular management training requirements. Therefore, a tailored program may be structured with the assistance of the program coordinator from a wide variety of credit courses offered by the College. All specialized options must be approved by the Chairman.

Information Management Diploma

Curriculum

Semester 1		Credits
Minimum keyboarding speed of 30 nwpm (40 gwpm) is required to enter first semester.		
30-215	Simulated Office Environment 1	8
30-018	Word Processing Fundamentals	4
31-010	Business Mathematics*	4
41-305	Introductory Communications	4
General Studies		3
Semester 2		Credits
30-220	Simulated Office Environment 2	4
Pre-Req: 266-215	Simulated Office Environment 1	
33-060	D.P. Office Systems	4
30-118	Word Processing Advanced	4
Pre-Req: 268-018	Word Processing Fundamentals	
21-010	Elements of Accounting	4
Communications 1		4
General Studies		3
Semester 3		Credits
33-170	Elements of Systems	4
Pre-Req: 233-035	Elements of Information Systems	
30-218	Word Processing & Networking	4
Pre-Req: 268-118	Word Processing Advanced	
30-025	MathPac/Alphasort	4
Pre-Req: 268-118	Word Processing Advanced	
30-019	W.P. Machine Transcription	4
Pre-Req: 268-018	Word Processing Fundamentals	
Communications 2		4
General Studies		3
Semester 4		Credits
30-021	Telecommunications 1	4
30-027	Records & File Architecture	4
Pre-Req: 268-218	Word Processing & Networking, 268-025	
MathPac/Alphasort		
251-020	Personnel	3
941-217	Communications 3	4
Pre-Req: 941-103	Communications 2	
General Studies		3
Semester 5		Credits
Requirements: completion of subjects in previous 4 semesters or permission of Program Coordinator		
253-113	Elements of Salary Compensation	4
Pre-Req: 251-020	Personnel	
251-120	Organizational Management 1	3
Pre-Req: 251-020	Personnel	
24-010	Marketing 1	4

North Campus

(Formerly Office Systems Administration Program)

Six semesters beginning each 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. The graduate will be a self-reliant individual with keyboarding and computer literacy skills.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English and mathematics (general level)
- minimum keyboarding speed of 30 nwpm (40 gwpm) is required to enter first semester

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.

Graduation Requirements

- An overall average of 60% in final year (minimum requirement to graduate).

268-022	Telecommunications 2	4
Pre-Req: 268-021	Telecommunications 1	
926-121	Microeconomics	3
Business Elective		4
Semester 6		Credits
Requirements: completion of subjects in previous 5 semesters or permission of Program Coordinator		
253-111	Labour Relations	4
Pre-Req: 251-020	Personnel	
251-220	Organizational Management 2	3
Pre-Req: 251-120	Organizational Management 1	
252-412	Organizational Communications	4
Pre-Req: 251-120	Organizational Management 1	
926-201	Macro Economics	3
2 Business Electives		8

Legal Secretary Diploma

North Campus

Four semesters beginning September and January

The objective of this program is to provide training in the specialized skills, procedures and knowledge required to function efficiently as a legal secretary in a law office or legal department of government or industry.

Training includes the principles of law and the preparation and application of legal documents in the areas of real estate, civil litigation and corporate.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English (general level)
- minimum keyboarding speed of 30 n/wpm (40 g/wpm) is required to enter first semester
- For direct entry into Semester 2, please refer to the requirements stated in the curriculum. For further information contact the Program Coordinator.

Job Opportunities

Employment opportunities may be found in private law firms and in business or government legal departments.

Graduation Requirements

An overall average of 60% in final year.

Curriculum

Semester 1	Credits
Minimum keyboarding speed of 30 n/wpm (40 g/wpm) Shorthand: Nil is required to enter first year semester	
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
Requirements for direct entry into 2nd semester: Keyboarding speed of 45 n/wpm (50 g/wpm) Shorthand: 60 wpm	
261-248 Legal Secretarial Procedures 1 <i>Pre-Req: 262-215</i>	8
262-748 Legal Shorthand 1 <i>Pre-Req: 262-005 Notetaking for Business</i>	4
254-040 Elements of Law 1	3
Communications 1	4
General Studies	3
Semester 3	Credits
261-257 Legal Secretarial Procedures 2	8
<i>Pre-Req: 261-248 Legal Secretarial Procedures 1</i>	
262-752 Legal Shorthand 2 <i>Pre-Req: 262-748 Legal Shorthand 1</i>	4
268-018 Word Processing Fundamentals	4
Communications 2	4
General Studies	3
Semester 4	Credits
261-267 Legal Secretarial Procedures 3	8
<i>Pre-Req: 261-257 Legal Secretarial Procedures 2</i>	
262-750 Legal Shorthand 3 <i>Pre-Req: 262-752 Legal Shorthand 2</i>	4
268-118 Word Processing Advanced	4
<i>Pre-Req: 268-018 Word Processing Fundamentals</i>	
General Studies (2)	6



Marketing Diploma

Curriculum

Semester 1		Credits
251-020	Personnel	3
241-010	Marketing 1	4
233-010	Business Mathematics*	4
221-011	Intro. to Accounting 1	4
	Communications 1	4
	General Studies	3

Semester 2		Credits
241-040	Elements of Law 1	3
241-110	Marketing 2	4
Pre-Req: 241-010	Marketing 1	
241-014	Fundamentals of Retailing 1	4
Pre-Req: 241-010	Marketing 1	
233-035	Elements of Information Systems	4
926-121	Microeconomics	3
	Communications 2	4

85% Math Assessment Test OR 60% Basic Math
Prerequisite courses require a passing grade of 60%.

General Marketing Option

In the third and fourth semesters, students will select marketing courses and a marketing or business course that best match their needs and abilities. A minimum of three marketing courses must be chosen. This

option is suitable to the individual who wants a more general marketing and/or sales background.

Job Opportunities

Employment can be found in sales, marketing trainee positions, distribution, and marketing administrative support areas.

Curriculum

Semester 3		Credits
241-110	Elements of Advertising	4
Pre-Req: 241-010	Marketing 1	
241-015	Elements of Salesmanship	4
Pre-Req: 241-010	Marketing 1	
251-120	Organizational Management 1	3
Pre-Req: 251-020	Personnel	
241-111	Marketing Research	4
	Marketing Elective	4
	General Studies	3

North and Lakeshore Campuses

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 is being introduced in the Fall 1986 in the marketing and management areas to make program transfer easier.

Admission Requirements

- Ontario Secondary School or equivalent
- Grade 12 academic or commercial mathematics, grade 12 English composition course at the general level. Accepted students will be tested in mathematics and English to determine a student's starting level in these subjects.

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.

Semester 4		Credits
241-810	Marketing Administration	4
Pre-Req: 281-010	Business Mathematics*	
	221-011 Intro. to Accounting 1, 233-035 Elements of Information Systems, 241-111 Marketing Research, 926-121 Microeconomics	
251-220	Organizational Management 2	3
Pre-Req: 251-120	Organizational Management 1	
	2 Marketing Electives	8
241-010	Marketing 1	4
	Business or Marketing Elective	4
Pre-Req: 241-010	Marketing 1	
	Communications 2	4
	General Studies	3

*Prerequisite courses require a passing grade of 60%.

**Marketing Administration requires a pass grade of 60%.

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.

Curriculum

Semester 3	Credits
243-110 Elements of Advertising <i>Pre-Req:</i> 241-010 Marketing 1	4
241-111 Marketing Research	4
245-015 Elements of Salesmanship <i>Pre-Req:</i> 241-010 Marketing 1	4
251-120 Organizational Management 1 <i>Pre-Req:</i> 251-020 Personnel	3
247-015 Fundamentals of Retailing 2 <i>Pre-Req:</i> 247-014 Fundamentals of Retailing 1	4
General Studies	3
Semester 4	Credits
241-810 Marketing Administration <i>Pre-Req:</i> 281-010 Business Mathematics*, 221-011 Intro. to Accounting 1, 233-035 Elements of Information Systems, 241-111 Marketing Research, 926-121 Microeconomics	4
251-220 Organizational Management 2 <i>Pre-Req:</i> 251-120 Organizational Management 1	3
245-110 Sales Management <i>Pre-Req:</i> 245-010 Salesmanship	4
241-710 Physical Distribution	4
243-112 Sales Promotion/Direct Mktg. <i>Pre-Req:</i> 241-010 Marketing 1	4
Communications 2	4
General Studies	3

Job Opportunities

Sales and management trainee opportunities in the merchandising and retail fields are some of the areas in which our graduates find employment.

*Prerequisite courses require a passing grade of 60%.
**Marketing Administration requires a pass grade of 60%.

*Core subjects are basic Business courses that are a prerequisite to the Marketing Administration course. Marketing Elective Courses Offered In Third and Fourth Semesters:

	Credits
241-710 Physical Distribution	4
243-112 Sales Promotion/Direct Mktg. <i>Pre-Req:</i> 241-010 Marketing 1	4
243-211 Advanced Advertising <i>Pre-Req:</i> 243-110 Elements of Advertising	4
245-110 Sales Management <i>Pre-Req:</i> 245-010 Salesmanship	4
247-015 Fundamentals of Retailing 2 <i>Pre-Req:</i> 247-014 Fundamentals of Retailing 1	4
240-011 Starting a New Business <i>Pre-Req:</i> 241-110 Marketing 2	4
241-812 Export Marketing <i>Pre-Req:</i> 241-110 Marketing 2	4
241-113 Marketing of Microcomputers <i>Pre-Req:</i> 241-010 Marketing 1	4
245-115 Advanced Salesmanship	4



Medical Secretary Diploma

North Campus

Four semesters beginning September and January.

The student will receive training in the specialized skills required for employment in doctors' offices, hospitals, clinics, laboratories, and government health agencies. Simulated medical secretary transactions such as keeping patient records and accounts, scheduling appointments and handling insurance and compensation forms and medical machine transcription will be included. In semester 4, students receive practical experience through a field placement in a medical office one day per week.

Admission Requirements

Ontario Secondary School Diploma or equivalent
grade 12 English (general level)
minimum keyboarding speed of 30 nwpm (40 gwpm) is required to enter first semester

Job Opportunities

Upon graduation, the student may look for a career in hospitals, medical labs, health departments, or doctors' offices.

For direct entry into Semester 2, please refer to the requirements stated in the curriculum. For further information contact the Program Coordinator.

Graduation Requirements

An overall average of 60% in final year.

Curriculum

Semester 1

Credits

Minimum keyboarding speed of 30 nwpm (40 gwpm) is required to enter first semester.

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

Keyboarding: 45 nwpm (50 gwpm) is required to enter directly into 2nd semester

265-030	Medical Science 1	4
261-232	Medical Office Procedures 1	4
<i>Pre-Req:</i> 266-215 Simulated Office Environment 1		
264-030	Medical Machine Transcription 1	4
<i>Pre-Req:</i> 266-215 Simulated Office Environment 1		
268-018	Word Processing Fundamentals	4
	Communications 1	4
	General Studies	3

Semester 3

Credits

265-130	Medical Science 2	4
<i>Pre-Req:</i> 265-030 Medical Science 1		
261-332	Medical Office Proc. 2	4
<i>Pre-Req:</i> 261-232 Medical Office Procedures 1		
264-031	Medical Machine Transcription 2	4
<i>Pre-Req:</i> 264-030 Medical Machine Transcription 1		
268-118	Word Processing Advanced	4
<i>Pre-Req:</i> 268-018 Word Processing Fundamentals		
759-103	First Aid & Accident Prevention	1
	Communications 2	4
	General Studies	3

Semester 4

Credits

265-230	Medical Science 3	4
<i>Pre-Req:</i> 265-130 Medical Science 2		
261-432	Medical Administrative Proc.	4
<i>Pre-Req:</i> 261-332 Medical Office Proc. 2		
233-060	D.P. Office Systems	4
264-032	Medical Machine Transcription 3	4
<i>Pre-Req:</i> 264-031 Medical Machine Transcription 2		
266-230	Medical Office Experience	1
	General Studies (2)	6



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 or equivalent
- pre-tests for mature students

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 <i>Pre-Req:</i> 233-035 Elements of Information Systems	4
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 <i>Pre-Req:</i> 221-014 Principles of Accounting 1	4
233-349	Data Base Management Systems 1 <i>Pre-Req:</i> 231-045 Programming 1, Micro	4
231-246	Comparative Languages 1 <i>Pre-Req:</i> 231-045 Programming 1, Micro	4
233-145	Automated Office Management <i>Pre-Req:</i> 233-045 Micro Fundamentals	4
233-146	Hardware/Software Systems <i>Pre-Req:</i> 231-045 Programming 1, Micro	4
233-147	Micro Systems Analysis 1 <i>Pre-Req:</i> 231-045 Programming 1, Micro, 233-035 Elements of Information Systems	4
941-129	Business Report Writing 2 <i>Pre-Req:</i> 941-128 Business Report Writing 1	3
Semester 3		Credits
231-247	Comparative Languages 2 <i>Pre-Req:</i> 231-246 Comparative Languages 1, 233-146 Hardware/Software Systems	4
233-246	Automated Accounting <i>Pre-Req:</i> 221-014 Principles of Accounting 1, 233-045 Micro Fundamentals	4
233-347	Micro Applications <i>Pre-Req:</i> 231-246 Comparative Languages 1, 233-147 Micro Systems Analysis 1	4
233-350	Data Base Management 2 <i>Pre-Req:</i> 233-349 Data Base Management Systems 1, 231-246 Comparative Languages 1	4
268-113	Data Communications <i>Pre-Req:</i> 233-035 Elements of Information Systems	4
283-110	Business Statistics <i>Pre-Req:</i> 281-010 Business Mathematics*	4
941-126	Business Presentations	4
231-015	Job Search	1

Office Administration Programs

North Campus

The Office Administration programs at Humber College offer the student comprehensive training in secretarial, office and administrative procedures to support the office team. The five career paths: Executive Secretary, Legal Secretary, Medical Secretary, Word Processing Supervisor

and Information Management Diploma programs provide specialized training and practical experience utilizing the most current office technology.

The student will be admitted in either September or January each year. See individual curriculum for start dates.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English (general level), and where applicable grade 12 mathematics (general level)
- aptitude test may be required
- minimum keyboarding speed of 30 nwpm (40 gwpm) is required to enter all first

semester post-secondary programs. The student who does not have this prerequisite should take the appropriate keyboarding course part-time prior to admission.

For Direct Entry into the Semester 2 of the Diploma Programs, please refer to the individual (Executive, Legal or Medical) curricula for prerequisites requirements.

Office Systems Operations

Lakeshore Campus

Two semesters
beginning
September**

This program will train students to operate and manage an office information system. Graduates will be able to perform all the basic and advanced word processing functions (text preparation, document management, and machine transcription), on a minimum of two different word processors. They will be able to operate other information systems such as records processing, data communications, personal and decision support.

Admission Requirements

Ontario Secondary School Graduation Diploma or equivalent
Keyboarding speed of 40 net words per minute
Prerequisite in English and Mathematics is required

Job Opportunities

Most sectors of business and industry require now, or will require in the near future, information processing personnel. Graduates of the Office Systems Operations will find entry positions in word processing, information processing and administrative functions. Promotions to word processing supervisor and administrative assistant levels could occur after a period of work experience.

Curriculum

Semester 1	Credits
233-035 Elements of Information Systems	4
231-047 Spread Sheet - Software	4
221-014 Principles of Accounting 1	4
268-011 Basic Word Processing*	8
941-135 Business Communications for Information Systems	4
268-013 Automated Office Systems 1	4
Semester 2	Credits
268-114 Records Processing	4
268-117 Fundamentals of Data Communication	4
233-148 Data & Word Processing in Accounting & Finance	4
268-111 Advanced Word Processing*	8
251-029 Canadian Business Methods	4
251-026 Office and Admin. Procedures	4
231-015 Job Search	1

*Denotes double course **Ce programme est aussi disponible en français. Voir La Bureautique 50.

Retail Co-op 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 Co-op Program is a unique program offered by Humber College 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 or equivalent
- grade 12 academic or commercial mathematics (general level)
- completed interview sheet, retail skills test, interview by a member of the program faculty or representative from the retail industry

NOTE: Although every effort is made to match the candidate with a suitable retail placement, the College cannot guarantee that a job will be available for all applicants. Previous retail work experience is beneficial but not essential.

Job Opportunities

At the entry level of retailing, the following positions can be obtained: management trainee in department and chain stores, assistant buyer in speciality and chain stores, assistant in inventory 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 an "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	5
243-104	Sales and Selling Skills	8
243-106	Retail Accounting	5
	Communications 1	4
Semester 2		Credits
243-201	Receiving and Inventory Procedures	5
243-202	Inventory Management Principles	6
243-107	Store Planning and Merchandising	6
243-108	Store Design	5
	Communications 2	4
	General Studies (2)	6
Semester 3		Credits
243-311	Visual Merchandising	6
243-312	Retail Advertising and Promotion	5
243-313	Selling/Sales Management	3
243-314	Buying Orientation	5
243-203	Distribution Centres	4
	General Studies (2)	6
Semester 4		Credits
243-414	Retail Employee Relations	3
243-412	Portfolio Presentations	6
243-415	Advanced Retail Strategies	6
243-416	Retail Supervision	3
243-417	Retail Law	2
	Communications 2	4
	General Studies (2)	6

Systems Analyst

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: 231-710 Cobol 1	4
283-110 Business Statistics Pre-Req: 281-010 Business Mathematics*	4
Communications 2	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 Languages Pre-Req: 231-710 Cobol 1	4

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 or equivalent
- aptitude test may be required
- grade 12 academic or commercial mathematics, as well as English composition courses at the general level or equivalent

Note: A mathematics assessment test after admission will allow the Division to place students at their appropriate level.



Word Processing Supervisor Program

North Campus

Four semesters beginning each September.

Word Processing has changed the role of the secretary. It has altered and increased the responsibilities of office employees by demanding business procedures which will bring about greater office productivity.

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.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English and mathematics (general level)
- minimum keyboarding speed of 30 nwpm (40 gwpm) is required to enter the first semester.

Job Opportunities

The graduating student can choose one of several office careers. Initially, experience as a word processor or correspondence secretary will enable the graduate to become a valuable member of an information management team. The student showing potential will find excellent opportunities for career advancement.

Graduation Requirements

An overall average of 60% in the final year.

Curriculum

Semester 1

Minimum keyboarding speed of 30 nwpm (40 gwpm) is required to enter the first semester.

	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

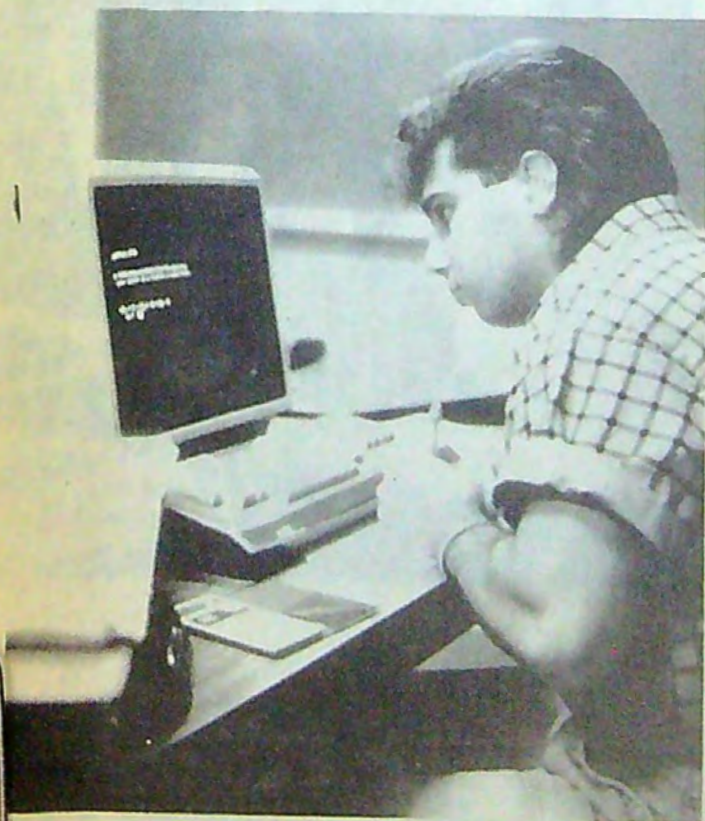
	Credits
266-220 Simulated Office Environment 2	4
<i>Pre-Req:</i> 266-215 Simulated Office Environment 1	
233-060 D.P. Office Systems	4
268-118 Word Processing Advanced	4
<i>Pre-Req:</i> 268-018 Word Processing Fundamentals	
221-010 Elements of Accounting	4
Communications 1	4
General Studies	3

Semester 3

	Credits
233-170 Elements of Systems	4
<i>Pre-Req:</i> 233-035 Elements of Information Systems	
268-218 Word Processing & Networking	4
<i>Pre-Req:</i> 268-118 Word Processing Advanced	
268-025 MathPac/Alphasort	4
<i>Pre-Req:</i> 268-118 Word Processing Advanced	
268-019 W.P. Machine Transcription	4
<i>Pre-Req:</i> 268-018 Word Processing Fundamentals	
Communications 2	4
General Studies	3

Semester 4

	Credits
261-470 Office Administration Procedures	4
268-021 Telecommunications 1	4
268-027 Records & File Architecture	4
<i>Pre-Req:</i> 268-218 Word Processing & Networking, 268-025 MathPac/Alphasort	
251-020 Personnel	3
941-217 Communications 3	4
<i>Pre-Req:</i> 941-103 Communications 2	
General Studies	3



Course Descriptions

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 aspects 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 on related items of income and expense, including accounting differences for each type of business enterprise.

Advanced Accounting 2**

225-511

This course is a continuation of Advanced Accounting placing emphasis on the practical application of accounting theory to selected advanced topics.

Advanced Advertising

243-211

Here the student will delve deeply into the generally accepted techniques used and problems faced by advertisers from the elements course period. 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, and reviews of books written about advertising "immortals".

Advanced Financial

Accounting 1

224-411

This course places emphasis on the practical application of accounting theory to selected advanced topics. The objective of the course is to develop

the ability of the student in the application of accounting concepts to practical situations.

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 Strategies

243-415

This course centers around advanced retail strategies assignments and will develop the student's work/study skills in the areas of: marketing research techniques, analysis and problem solving techniques, time management methods and group communication skills. It will also integrate these skills with a view of personal career planning.

Advanced Salesmanship

245-115

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.

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.

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.

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 Co-op 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.

Computerized Accounting

221-150

The objective of the course is to give the student the opportunity of relating the theoretical aspect of accounting with the practical recording of information using a manual and a computerized system.

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 Procedures 254-128

This course involves a study of the procedures related to civil actions in Ontario. The course objective is to familiarize students in the Legal Assistant Program with the practice and procedures of civil litigation (as opposed to

criminal matters) in the Ontario courts.

Criminal Litigation 254-129

This course is a study of criminal court procedures in Ontario. The objective of the course is to familiarize Legal Assistant Program 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 database, 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.

Distribution Centres

243-203

Behind many large retail chains is an effective and efficient central distribution centre. This course is designed to demonstrate the organization and processes involved in collecting merchandise from suppliers and distributing it to the retail outlets.

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 Advertising

243-110

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.

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 & Group Insurance 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 Salesmanship

245-015

Elements of Salesmanship is the introductory course in a two-course study of Salesmanship. This introductory course is designed to provide students with a basic understanding of the selling profession and of the human relations skills involved in this field.

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.

Executive Machine Trans. 2

264-043

This course will introduce material of a more detailed and complex type and will require that the student put into practice the knowledge of format and style gained in Executive Office Procedures 1 and 2. The material will continue to be integrated with the type and degree of difficulty being currently presented in Executive Office Procedures 2. Continuing emphasis will be placed on correct language usage in order to broaden the student's knowledge and ability of special terms and word usage.

Executive Office Procedures 261-273

This section of the course will widen the student's knowledge in typewritten communications, including the taking and giving of office dictation both of instructions and simple business communications. Composition assignments will be given and the preparation of quality transcription will be emphasized. The responsibilities of handling the mail, the use of transmittal services, the business telephone, and travel arrangements will be taught. The duties connected with the preparation and operation of meetings and conferences will also be included in this section.

ERP 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 requirements 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 pri-

mary 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.

Fundamentals of Retailing 1 247-014

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.

Fundamentals of Retailing 2 247-015

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.

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.

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.

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 lock-out. 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 Administration 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.

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, Worker's 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 Transcription 2. The emphasis will be on transcription from tapes providing multi-cultural accents. This authentic material comes 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.

Organizational Management 1 251-120

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 2 251-220

Since Organizational Management 2 combines long-range planning with the maxi-

mum 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

Looking at any business street you will see stores of all kinds--department stores, clothing stores, variety stores, furniture stores and many others. Each is a retail outlet or store. In this course, Co-op students will study the history and development of various types of retailing, as well as learning about future opportunities in the retailing industry.

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 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 arranging them, and strategies for planning and organizing the overall Physical Distribution program.

Portfolio Presentations 243-412

A study of methods, materials and techniques used in a variety of presentations. Various aspects of coordination of materials, budget, and audio-visual techniques are studied. The students will be required to compile a report on their specific placement location related to the previous field work components. Students will be expected to make a formal presentation of the material demonstrating communication skills.

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.

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

is 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.

Receiving and Inventory Procedures 243-201

Accuracy in record-keeping and a precise system of documentation are essential in the successful management of inventory in a retail store. This course will describe the procedures followed as the merchandise comes into the store, is received, and placed on the floor for presentation to the customer.

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 learn the 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 Employee Relations 243-414

This course is an examination of the relationship between employees and the

companies in which they work. Personnel practices will be studied as well as the impact of the labour relations movement on the retailing sector today. Issues will be examined with a view to maintaining a healthy and competitive retailing business while recognizing the needs and concerns of employees through the practice of positive employee relations.

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.

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 Co-op 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.

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 Co-op 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.

Salesmanship 245-010

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.

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 Co-op student background information on the problems involved in staff scheduling and sales staff productivity. This second course in sales will emphasize the management of human resources through analysis.

Small Business Computer Applications 234-580

This course permits the student to examine the acquisition of computer equipment in the small business arena. As such, a look at the basic configuration of a small computer system, selection and installation processes, evaluation of software and understanding of computer contracts will be presented. The student will

also be able to evaluate some of the popular software packages that are on the marketplace for a microcomputer.

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. The creation of a new store design must certainly involve careful financial planning but, this course is designed to look at specific physical needs such as colour, lighting and fixtures to establish 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 view in 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 perform 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.

Will & Intestate 254-124

This course is designed to familiarize the student with some of the language of wills, estates and succession duties, including the documentation involved, the procedures and some 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 deceased persons including trust companies and government departments.

Work Measurement 291-011

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, performance 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.

Descriptions for Communications and General Studies courses can be found in the Human Studies section, beginning on page 154.

Health Sciences



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 pre-school 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.

Semester		Credits
793-801	After-school Programming for 6-10 Year Olds	2
793-802	Cognitive Development: Theory and 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

Ambulance and Emergency Care

North Campus

Two semesters starting September and six weeks in the Spring

At the time of writing, the Ambulance and Emergency Care program is presently under review. Please check with the program coordinator for up-to-date changes in the course curriculum.

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.

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 <i>Pre-Req:</i> 731-115 Emergency Patient Care 1	1
941-215 Communications for Health Sciences	4
934-126 Human Relations (under review)	4

Semester 2 (26 hours/week)		Credits
731-213 Ambulance Service 2		3
Req: 731-112 Ambulance Maintenance, Operation & Safety, 731-110 Ambulance Service 1, 731-115 Emergency Patient Care 1		
731-109 Emergency Patient Care 2		6
Req: 731-115 Emergency Patient Care 1		
731-210 Emergency Patient Care Lab 2		5
Req: 731-109 Emergency Patient Care 2		
731-104 Moral and Ethical Issues in Health		2
731-208 Physical Education		2
731-128 Psychology		3
731-309 Rescue Procedures		2
731-111 Microbiology		1
731-205 Emergency Patient Care Seminar		2
Req: 731-115 Emergency Patient Care 1		
Spring Session (40 hours/week)		Credits
731-305 Applications in Emergency Patient Care		15
Req: 731-213 Ambulance Service 2, 731-109 Emergency Patient Care 2, 731-205 Emergency Patient Care Seminar		

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- senior level biology and chemistry
- information-sharing and assessment session at the College
- in order to qualify for provincial licensing, students must be 19 years of age at the end of the academic year
- secondary school science comprehension questionnaire and English pretest
- 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

Early Childhood Education

Syllabus

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
731-101 Teaching the Young Child 1		4
731-103 Creative Activities Workshop 1		3
731-108 Abused Child		1
731-107 Field Practice 1		6
731-109 Integrative Seminar 1 (E.C.E.)		1
731-111 Nutrition & Health		1

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 stimulat-

ing environment, graduates should be able to foster mental health, growth and development in each child.

Communication skills and inter-personal 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.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- 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 80 hours minimum should be completed prior to February 15th 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 (Heart Saver level). This must be completed prior to admittance in the program. 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
- 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

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	2
791-207	Field Practice 2	1
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

...ing 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 institu-
tions.
With the growth of day care
in the province, graduates
have started as classroom

teachers have been able to
become supervisors or owners
of their own centres.

The minimum age require-
ment 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 mini-
mum 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 \$300/year
Travel to field placements
\$150/year
Expendable supplies
\$200/year

Early Childhood Education For the Developmentally Handicapped

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
EC-101 Teaching the Young Child 1	4
EC-103 Creative Activities Workshop 1	3
EC-108 Abused Child	1
EC-102 Field Work 1	6
EC-104 Integrative Seminar 1 (E.C.E.D.H.)	1
EC-111 Nutrition & Health	1
EC-106 The Child with Special Needs 1	2
EC-116 Seminar on the Child with Special Needs 1	2
EC-112 Elements of Human Behaviour 1	3
EC-114 Human Growth & Development 1	3
EC-115 Communications 1	4
Semester 2 (30 hours/week)	Credits
EC-201 Teaching the Young Child 2	4
EC-203 Creative Activities Workshop 2	3
EC-202 Field Work 2	6
EC-204 Integrative Seminar 2 (E.C.E.D.H.)	1
EC-215 Observing and Recording Children's Behaviour	2
EC-206 The Child with Special Needs 2	2
EC-214 Human Growth & Development 2	3

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 educa-
tional program for people with
developmental special needs,
from birth to early adult years.
Major emphasis is placed on
younger persons with develop-
mental special needs in educa-
tional programs (birth to 10
years of age). As infant ser-
vices, 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.

The minimum age require-
ment for employment accord-
ing to the Day Nurseries Act is
18 years. Some field place-
ment settings may require a
check with the Police Depart-
ment 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 semes-
ters, students will have field
placements with non-handi-
capped children in day care
centres and nursery schools.
In the third and fourth semes-
ters, field placement will be in
nursery schools for specific
types of handicapping condi-
tions and developmental
classes in the school system.
Some students may be placed
in specialized settings such as
Infant Stimulation Projects,
Adult Developmental Pro-
grams or agencies serving
specific handicapping condi-
tions.

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 chil-
dren with developmental spe-
cial needs in settings
acceptable to the field coordi-
nator. The second period will
be spent with non-handicap-
ped children in settings
acceptable to the field coordi-
nator. 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 facili-
ties. In this way, the student is
able to practise the theory
learned in the classroom set-
ting. 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.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- 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 does not include babysitting, should be educational in focus; the 80 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 (Heart Saver level). This must be completed prior to admittance in the program. 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.

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 1	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
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
	General Studies	3
Spring Semester (May/June of each year)		Credits
792-503	Field Work 5	12
792-603	Field Work 6	12

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 \$300/year
- Travel to field placements \$200/year
- Expendable supplies \$200/year
- Field work semester fee \$68/year (May/June 1986/87)

Early Childhood Education Resource Teacher Post-Diploma Certificate

36-hour courses and three 105-hour placements

Designed for graduates of early childhood education program, the program will prepare the educator with the theory and practical experience necessary to work with children who have special needs. The curriculum will focus on integration and on programming for individuals and groups. It includes demonstrations, discussions, lectures, reports, the use of resource materials and assignments.

Admission Requirements

Early childhood education diploma or equivalent
one post diploma year of work with children in a group care setting
105 hours (minimum) with children who are developmentally delayed (as defined in the Day Nurseries Act)
orientation session with program co-ordinator

Interests and Skills

- ability to work with children with special needs and their families in a sensitive, resourceful manner
- on-going career commitment
- leadership, initiative and understanding

Job Opportunities

After this program, graduates are qualified to work as resource teachers (as defined in the Day Nurseries Act). You will work in day care settings where you can help each child and his/her family lead a more independent and productive life in the community.

Curriculum

Incoming students will have to review basic information selected for its relevance to the course content. The package is designed to apply the knowledge acquired in introductory courses to the material of higher-level courses.

Semester Credits

799-801	Introduction to Resource Teaching	2
799-802	Individual Development Planning 1 <i>Pre-Req:</i> 799-801 Introduction to Resource Teaching	2
799-803	Field Practicum 1 <i>Pre-Req:</i> 799-802 Individual Development Planning 1	7
799-804	Working with Families <i>Pre-Req:</i> 799-803 Field Practicum 1	2
799-805	Individual Development Planning 2 <i>Pre-Req:</i> 799-804 Working with Families	2
799-806	Field Practicum 2 <i>Pre-Req:</i> 799-805 Individual Development Planning 2	7
799-807	Advocacy in the School and Community <i>Pre-Req:</i> 799-806 Field Practicum 2	2
799-808	Coordinating Resources <i>Pre-Req:</i> 799-807 Advocacy in the School and Community	2
799-809	Field Practicum 3 <i>Pre-Req:</i> 799-808 Coordinating Resources	7

Courses must be taken in this order. The workload is heavy and will demand consistent high quality effort.

Funeral Service Education

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
739-111	Microbiology	1
759-104	Moral and Ethical Issues in Health	2
732-106	Orientation to Funeral Service 1	4
	General Studies	3

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.

North Campus

Four semesters starting September

In this program you will cover 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 in the living. Behavioural science courses are designed to help you meet the needs of those who are to be served in funeral service. A business

Semester 2 (27 hours/week)	Credits
732-209 Cell Physiology <i>Pre-Req:</i> 732-101 Embalming Theory 1, 732-102 Embalming Lab 1, 759-101 Human Anatomy and Physiology, Intro.	1
732-202 Embalming Lab 2 <i>Pre-Req:</i> 732-101 Embalming Theory 1, 732-102 Embalming Lab 1	2
732-212 Embalming Theory 2 <i>Pre-Req:</i> 732-101 Embalming Theory 1, 732-102 Embalming Lab 1	4
266-052 Basic Keyboarding	2
732-211 Orientation to Funeral Service 2 <i>Pre-Req:</i> 732-106 Orientation to Funeral Service 1	4
739-203 Pathology <i>Pre-Req:</i> 759-101 Human Anatomy and Physiology, Intro.	3
924-111 Psychology of Grief <i>Pre-Req:</i> 732-106 Orientation to Funeral Service 1	4
732-213 Restorative Art <i>Pre-Req:</i> 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).

You should also have the potential for excellent communications skills.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- pre-admission interview and testing
- health certificate (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
- valid St. Johns Standard First Aid Certificate (or equivalent). Applicants without this

requirement would be expected to obtain it within the first semester

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 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.

Semester 4	Credits
732-401 Theoretical Applications 2 (Correspondence Course) <i>Pre-Req:</i> 732-301 Theoretical Applic. 1 (Correspondence Course)	4
Spring Session	Credits
732-502 Theoretical Applications 3 (On Campus) <i>Pre-Req:</i> 732-401 Theoretical Applications 2 (Correspondence Course)	3

Gerontology (Post-Diploma)

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:	Credits
781-807 Leadership Skills	2
781-808 Group Work With The Elderly	2

North Campus

This is a post-diploma certificate program specifically designed for professionals working with the elderly who wish to acquire additional professional 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

781-809 Principles and Methods of Motivation and Reactivation	2
761-801 Management Skills for Nurses	2
781-811 Conference/Workshop Attendance	2

Human Sexuality: Counselling & Teaching Program

North Campus

This post-diploma multidisciplinary certificate program is specifically designed for, and restricted to, professionals such as family physicians, social workers, psychologists, counsellors, teachers, nurses, clerics, and others engaged in counselling or counselling people in the area of human sexuality who feel they require additional professional training. The program is offered on a part-time basis during the fall

and winter semesters with special workshops on some selected weekends. Regular classes are held in the evening (usually Tuesdays).

Admission Requirements

- professional certification or the equivalent of professional experience is required
- interview and letters of references are required before entry into the program can be guaranteed

Curriculum

Students may register for the entire program rather than one course at a time (only Medical-Biological Aspects of Sexuality can be taken for credit on an individual basis).

735-108	Medical-Biological Aspects of Sexuality	3
735-102	Sexual Attitudes and Values	3
735-103	Psychosocial Aspects of Sexuality	4
735-104	Counselling in Family Planning & Sexuality	4
735-105	Teaching Family Planning & Sexuality	4
735-111	Clinical/Field Experience Practicum	3

Life Threatening Illness, Dying and Bereavement

Multidisciplinary

This post-diploma certificate program for professionals who are currently employed in a related human service field requires at least one year of related working experience in the 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 clinical 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 <i>Pre-Req:</i> 782-810 Death in Our Society	2
782-804	Helping the Critically Ill and Their Families <i>Pre-Req:</i> 782-810 Death in Our Society, 782-802 Life Threatening Illness	2
782-811	Field Placement 1 <i>Pre-Req:</i> 782-810 Death in Our Society, 782-802 Life Threatening Illness	1
782-803	Death, Grief and Bereavement <i>Pre-Req:</i> 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 <i>Pre-Req:</i> 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 <i>Pre-Req:</i> 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 six 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-six 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 or equivalent or mature applicant 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 \$350. Students are required to purchase Humber College uniforms. Students are required to purchase nursing uniforms, shoes and stockings.

Field Placement

Acute and chronic-hospitals in the cities of York, North York, Etobicoke 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, 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 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 (29 hours/week)		Credits
739-112	Basic Anatomy and Physiology (Nursing)	4
739-114	Microbiology (Nursing)	1
924-208	Developmental Psychology	3
923-101	Introductory Sociology	3
941-215	Communications for Health Sciences	4
711-120	Assessment of the Well Individual	6
711-121	Basic Nursing Practice	8
Semester 2 (30 hours/week)		Credits
712-224	Adaptation Nursing (N.A.)	7
<i>Pre-Req:</i> 711-120 Assessment of the Well Individual, 924-208 Developmental Psychology, 739-112 Basic Anatomy and Physiology (Nursing)		
712-221	The Nursing Assistant as Practitioner	21
<i>Pre-Req:</i> 711-121 Basic Nursing Practice		
712-205	Legal and Professional Issues for the Nursing Assistant	1
759-105	Ethical Issues in Health Care	1
Spring Session (37.5 hours/week for 6 weeks)		Credits
712-521	Pre-graduate Experience (N.A.)	12



Nursing Program

Curriculum

Important notice to all Nursing students: All first and second year courses must be successfully completed in order to move into subsequent year.

Semester 1 (27 hours/week)*	Credits
Assessment of the Well Individual	5
Basic Nursing Practice	8
Introductory Psychology	3
Developmental Psychology	3
Communications for Health Sciences	4
Basic Anatomy and Physiology (Nursing)	4

Common semester with Nursing Assistant students

Semester 2 (26 hours/week)	Credits
Introduction to Adaptation Nursing 1 *Req: Basic Nursing Practice, Assessment of the Well Individual, Basic Anatomy and Physiology (Nursing)	8
The Nurse as Practitioner 1 *Req: Basic Nursing Practice, Assessment of the Well Individual, Basic Anatomy and Physiology (Nursing)	14
Physiological Adaptation and Maladaptation 1 *Req: Basic Anatomy and Physiology (Nursing)	4

Semester 3 (27 hours/week)	Credits
Adaptation Nursing 2 *Req: Introduction to Adaptation Nursing 1, The Nurse as Practitioner 1, Physiological Adaptation and Maladaptation 1	7
The Nurse as Practitioner 2 *Req: Introduction to Adaptation Nursing 1, The Nurse as Practitioner 1, Physiological Adaptation and Maladaptation 1	14
Physiological Adaptation and Maladaptation 2 *Req: Physiological Adaptation and Maladaptation 1	3
Introductory Sociology	3

Semester 4 (25 hours/week)	Credits
Adaptation Nursing 3 *Req: Physiological Adaptation and Maladaptation 2, Adaptation Nursing 2, The Nurse as Practitioner 2	6
The Nurse as Practitioner 3 *Req: Physiological Adaptation and Maladaptation 2, Adaptation Nursing 2, The Nurse as Practitioner 2	14
Physiological Adaptation and Maladaptation 3 *Req: Physiological Adaptation and Maladaptation 2	2
General Studies	3

North Campus

Six full semesters

At the time of writing Calendar 1987, Humber's Nursing Program was under revision. Course names and content may be altered.

The nursing program at Humber prepares the motivated student to help clients and their families stay well, adapt to conditions of illness and 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, the legal and moral issues encountered in nursing practice are discussed. The problem-solving skills of the nursing process are developed in the clinical settings of (Paediatrics, Obstetrics, Medicine, Surgery, Psychiatry and Rehabilitation) under the supervision of the clinical instructor until the student demonstrates confidence in nursing judgement and decision-making. Upon successful completion of the Program, students are eligible to write the Registration Examinations through the College of Nurses of Ontario

Admission Requirements

- Ontario Secondary School Diploma or equivalent with two different senior level sciences at 60%, (chemistry, physics or biology) and a 60% average in all academic subjects taken in the last year of study
- or mature applicant status (19 years old at the time of enrolment)
- 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 registration with the College of Nurses of Ontario in order to be eligible for exemptions in some nursing courses of the first semester.

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 Registered Nurse's Examination of Ontario offered through the College of Nurses. Positions exist with acute and chronic-care hospitals, voluntary community health agencies, homes for the elderly, industry and doctor's offices.

Additional Costs

The following expenses are in addition to tuition fees. The cost of textbooks is approximately \$450. Students are required to purchase nursing uniforms, shoes and stockings at an approximate annual cost of \$100.00-\$130.00.

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 Queen-slea 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 maintains a 60% minimum average. An ability to research information independently combined with good problem-solving skills are definite assets.

A genuine interest in nursing as a career coupled with realistic personal expectations facilitate the socialization process into the profession.

An ability to interact with people of all ages enables the student to establish the expected therapeutic relationship with clients in the clinical setting.

Semester 5 (28 hours/week for weeks 1-8) (27 hours/week for weeks 9-16)

	Credits
Adaptation Nursing 4 (weeks 1-8)	3
<i>Pre-Req:</i> Physiological Adaptation and Maladaptation 3, Adaptation Nursing 3, The Nurse as Practitioner 3	
The Nurse as Practitioner 4 (weeks 1-8)	7
<i>Pre-Req:</i> The Nurse as Practitioner 3, Adaptation Nursing 4, Physiological Adaptation and Maladaptation 3	
Physiological Adaptation and Maladaptation 4 (weeks 1-8)	1
<i>Pre-Req:</i> Physiological Adaptation and Maladaptation 3	
Leadership in Nursing (weeks 9-16)	3
<i>Pre-Req:</i> Adaptation Nursing 4, The Nurse as Practitioner 4, Physiological Adaptation and Maladaptation 4	
The Nurse as Leader (weeks 9-16)	11
<i>Pre-Req:</i> Adaptation Nursing 4, The Nurse as Practitioner 4, Physiological Adaptation and Maladaptation 4	
Computers in Health Care (Applied) (weeks 1-8)	3

Semester 6 (37.5 hours/week)

	Credits
Pregraduate Theory (week 1)	2
<i>Pre-Req:</i> Leadership in Nursing, The Nurse as Leader	
Pregraduate Experience (weeks 2-16)	35.5
<i>Pre-Req:</i> Leadership in Nursing, The Nurse as Leader	

Pharmacy Assistant Program

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 person-

nel 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.

Curriculum

Semester 1	Credits
941-115 Communications 1	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

(plus 6 weeks Spring Session)

Semester 2	Credits
73-108 Community Health	2
73-111 Microbiology	1
73-218 Pharmaceutical Calculations 2 Pre-Req: 733-107 Pharmaceutical Calculations 1	1
73-216 Hospital Pharmacy Procedures Pre-Req: 733-108 Orientation to Pharmacy	1
73-132 Interpersonal Skills for Pharmacy Personnel Pre-Req: 733-103 Pharmacy Science 1, 739-204 Introductory Human Physiology	2
73-209 Pharmacy Science 2 Pre-Req: 733-103 Pharmacy Science 1, 739-204 Introductory Human Physiology	5
73-213 Computer Prescription Records Pre-Req: 733-108 Orientation to Pharmacy, 733-106 Community Pharmacy Prescriptions	2
73-217 Hospital Pharmacy Dispensing Pre-Req: 733-106 Community Pharmacy Prescriptions, 733-107 Pharmaceutical Calculations 1	3
73-210 Aseptic Techniques Pre-Req: 733-218 Pharmaceutical Calculations 2, 739-111 Microbiology, 733-103 Pharmacy Science 1	2
73-103 First Aid & Accident Prevention	1
Spring Semester	Credits
73-214 Hospital Pharmacy Work Experience Pre-Req: 733-217 Hospital Pharmacy Dispensing, 733-216 Hospital Pharmacy Procedures, 733-210 Aseptic Techniques	3
73-215 Community Pharmacy Work Experience Pre-Req: 733-108 Orientation to Pharmacy, 733-213 Computer Prescription Records	2

Admission Requirements

- Ontario Secondary School Diploma or equivalent including senior mathematics and chemistry, plus one other science at the senior level
- pre-admission testing
- pre-admission orientation to the program
- 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. Graduates should expect some evenings &/or shift work. With some experience, job opportunities expand to pharmaceutical industry and possibly research laboratories.

Post-Diploma Nursing

Curriculum

- R.N. Operating Room Nursing
- Contemporary Obstetric Nursing
- Coronary Care Nursing
- Emergency Nursing
- Mental Health Nursing
- Neurological Nursing
- Occupational Health Nursing
- Respiratory Nursing
- RNA Operating Room Nursing

Humber College offers to registered nurses and nursing assistants a selection of carefully designed post-diploma programs to add to their basic training.

For further information on these post-diploma nursing programs, please contact the Senior Program Coordinator, Osler Campus, 249-8301, ext. 216. We publish a detailed brochure on all our nursing

programs. It includes the schedule for a full year and the course descriptions.

Nine programs are available for nurses. These are:

Descriptions for Communications and General Studies courses can be found in the Human Studies section, beginning on page 154.

RN Refresher Program

Osler Campus

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 practise and 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.

Curriculum

Semester		Credits
769-801	RN Refresher Theory/Laboratory Practice (100 hours)	6
769-804	RN Refresher Clinical Practice (175 hours)	11

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.

Working With The Aged (Post-Certificate)

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.

There is also a program offered called Working With The Aged for R.N.A.'s. This is a specialization of the Working With The Aged program for Registered Nursing Assistants planned for the 1986-87 academic year. Please contact Lynelle Williams, the Program Coordinator, at 675-3111 ext. 4320 for further information.

Curriculum

Compulsory:

Semester		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
781-812	Individual Field Experience	2
and one of		
781-806	Institutional Field Experience	2
OR		
781-810	Community Field Experience	2

Electives:

Semester		Credits
781-809	Principles and Methods of Motivation and Reactivation	2
781-805	Independent Study Project	3
781-811	Conference/Workshop Attendance	2

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.

Adaptation Nursing (N.A.) 712-224

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 Assistant will be considered from two aspects: those tasks delegated by the Registered Nurse, and those nursing interventions which she performs independently.

Adaptation Nursing 2

Refer to course description of Introduction to Adaptation Nursing 1 (711-220).

Adaptation Nursing 3

Refer to course description of Introduction to Adaptation Nursing 1 (711-220).

Adaptation Nursing 4

Refer to course description of Introduction to Adaptation Nursing 1 (711-220).

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.

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.

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.

Assessment of the Well Individual

This is a 15 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 adaptive responses through the lifespan. This course consists of four modules: 1) Introduction to Nursing; 2) Roy's Model and Nursing Process; 3) Adaptive Modes; and 4) Wholistic Care.

Basic Anatomy and Physiology (Nursing)

In this course, the 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.

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 Nursing Practice

This course is designed to assist the student to practise skills appropriate to the assessment of well individuals across the lifespan. The student will have the opportunity to practise nursing skills which promote wellness and maintain health of the individual and their families. Experience is provided in acute care, long term care, and rehabilitation agencies. Community visits to senior citizen's residences, and day care centres are incorporated into the course experience.

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 to understanding the children themselves.

Clinical/Field Experience Practicum 735-111

In addition to the regularly scheduled classes and workshops, there are field placements in local institutions, agencies and clinics, to broaden the professionals current range of educational, clinical, and teaching experiences.

Cognitive Development: Theory and Practical Applications in Early Childho 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 a

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 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.

Counselling in Family Planning & Sexuality 795-100

This course concentrates counselling skills in the area of family planning and sexuality using a variety of examples. Students will combine theory with the examination of case studies. The course will be taught using role-playing and micro-counselling techniques. Students are encouraged to develop their own personalized sex counselling modes and will have to be familiar with the main approaches to counselling.

Creative Activities Workshop 1 791-100

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 practice skills in a workshop environment.

Creative Activities Workshop 2 791-100

Refer to course description for Creative Activities Workshop 1 (791-103).

Death in Our Society 782-100

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, para-psychological 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 essentials 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 home 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 apply the developmental theory to 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 appropriate activities in a therapeutic, educational or recreational 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.

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 network 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

Embalming Lab 1 will include presentations by student groups as well as selected hypothetical cases to be examined.

Embalming Lab 2 732-202

Embalming Lab 2 will further acquaint the student with a variety of techniques that may be utilized in embalming. Groups will be withdrawn from scheduled classes for individual embalmings. This lab will include: a) non-scheduled participation in lab (students are responsible to obtain material from missed classes) and b) scheduled class time.

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 759-105

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 on an ethical and moral nature in health issues.

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 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 Nur-

sery 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 4 792-302

Refer to course description of Field Work 3 (792-302)

Field Work 5 792-302

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 6 792-302

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 759-102

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.

Group Work With The Elderly 761-801

This course will examine structures and process of group work as it relates to the elderly client. Particular emphasis will be paid to the dynamics of group formation, maintenance and development.

Helping the Bereaved 782-801

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

...which will run concurrently. Three sessions will be devoted to case reviews carried out through the means of close supervision. Course topics include techniques of identifying those who are grieving, methods of identifying specialized resources, and referral of caregivers. Individual sessions will also cover such areas as acting as a source of support and assistance to others who are grieving the bereaved, methods of sharing information to increase the awareness of colleagues and laypersons about grief, and an overview of models of bereavement and evaluation programs assisting those coping with illness or grief.

Caring for 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 concerned caregivers. Sessions dealing with theory and clinical practice will be provided in conjunction with the supervised field experience at course (782-811). Each student will carry out his/her work setting. To extend the students' experiences beyond those available in individual professions and areas of work, and to assist the instructors in their advisory functions, at least two sessions, interspersed throughout the course will be devoted to case reviews. Using a combination of seminars, small group discussion and field work, such topics as theories of prevention, intervention, helping families and friends, the stresses on caregivers, the problems of bereavement within service delivery systems, techniques of bereavement, and identification of bereaved individuals will be

Hospital Pharmacy Dispensing 733-217

...practical experience in the area of drug distribution and dispensing. Sessions will be empha-

sized. 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 advisory. 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).

Introduction to Adaptation Nursing 1

Adaptation Nursing 2;
Adaptation Nursing 3;
Adaptation Nursing 4:

These four courses are presented sequentially and are designed to develop the student's ability to assess from simple to the most complex health problems as they occur across the lifespan.

Approaches to support or modify the patients' behaviour through nursing intervention will be discussed utilizing the Nursing Process and Roy's Adaptation Model. Integrated throughout the courses will be units of study that deal with legal, moral/ethical and professional issues that impact on nursing practice. The content is organized according to systems.

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 in Nursing

This eight-week course will examine various theories of leadership and the nurse's role as a change agent. The student will be made aware of the nurse's responsibility as a leader within the health care delivery system.

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 712-8

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 in health care delivery. Of primary importance to the RN is a knowledge of legislation and organizations as each applies in Ontario.

Life Threatening Illness 782-8

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 practical problems which 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 761-8

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 management principles for the first-line nursing manager. As the course will deal with basic principles, those nurses with previous management experience would be advised to consider Management Skills for Nurses 2.

Medical-Biological Aspects of Sexuality 738-8

This course is to give participants a basic working back-

ground of biological and medical considerations pertaining to human sexuality, including the impact of human physiology on sexual development and functioning. Considerations of specific pathological disabilities and aging generally will be centered on expected sexual potential as well as limitations. Other pertinent medical and biological aspects, such as fertility and infertility will also be covered.

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 application of microbiology to the particular vocational settings.

Microbiology (Nursing) 739-114

This course will introduce the student to basic concepts of microbiology and its application to the health care setting. Special emphasis will be placed on selected pathogenic organisms. The chain of infection, body defenses and various methods of controlling micro-organisms will be discussed.

Moral and Ethical Issues in Health 759-104

This course covers a survey of major health issues which are currently, or in the future, 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 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 and childhood music and in music that has been added down over the years; vocal sessions focusing on 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.

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. Perinent 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 relationships 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 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; plan-

ning and providing orientation and in-service training for participating parents; developing appropriate parent education programs.

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.

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.

Physiological Adaptation and Maladaptation 1

This course introduces the basic concepts of homeostasis and disease. These concepts will be expanded upon to include the adaptation and maladaptation of the reproductive and integumentary systems.

Physiological Adaptation and Maladaptation 2

This course deals with the physiology and pathophysiology of the nervous system and special senses.

Physiological Adaptation and Maladaptation 3

This course deals with the physiology and pathophysiology of the circulatory and respiratory systems.

Physiological Adaptation and Maladaptation 4

This course deals with the physiology and pathophysiology of the musculoskeletal, digestive and urinary systems.

Pregraduate Experience

This pregraduate experience will provide for synthesis and consolidation of previous learning, and opportunities for increasing judgment, skill 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.

Pregraduate Theory

This course is 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 Canadian Nurses Association (C.N.A.) Blueprint for Nursing.

Principles and Methods of Motivation and Reactivation **781-809**

This course is designed to help the student develop life-style enrichment 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 1 **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.

Psychology **924-128**

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**

Students will study the school age child as he ventures forth from the protection of the home and adjusts to the wider community and so develops the necessary coping skills needed all his life. We then continue studying the individual as he reaches adolescence and the newly identified stage of youth.

Psychology of Later Childhood & Adolescence 2 **791-429**

Refer to course description of Psychology of Later Childhood & Adolescence 1 (791-329).

Psychosocial Aspects of Sexuality **735-103**

In this course, we will examine human sexuality in the

contexts of both society and the individual. The phenomenon, although to be viewed primarily from psycho-social perspectives, will also be examined from historical, cross-cultural, symbolic and linguistic perspectives. We focus on the sexual connection: the inextricable links between society and sex.

Rescue Procedures **731-204**

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 **732-214**

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.

RN Refresher Clinical Practice (175 hours) **769-804**

The clinical component of the program allows the student the opportunity to practice 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 practice; and to ensure the development and safe practice 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 complexity 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 preceptor model of clinical supervision will be implemented.

Refresher Theory/Laboratory Practice (60 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 modules for 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.

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.

Sexual Attitudes and Values 735-102

This series of seminars will allow the students to explore the clarify their attitudes toward human sexuality, sexual counselling and teaching sexuality. Students will also be able to isolate their own attitudes from those of others in the helping relationship. These seminars are process-oriented and designed to help students develop the ability to learn through a variety of learning experiences.

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).

Teaching Family Planning & Sexuality 735-105

This is an opportunity to learn program design and development skills necessary to provide both structured and unstructured learning experiences in formal and informal settings. Students will gain experience through peer-teaching practice in a variety of situations. In this skills development course which will focus on teaching methods, students will be exposed to various models of teaching. The microteaching approach allows the students to design, implement and evaluate their own programs.

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 prioritizing; method of instruction; models of instruction; measurement and evaluation.

The Aging Process 781-801

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 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.

The second section of this course will deal with the biological aspects of aging. Distinctions between normal and pathological processes will be discussed. Age-related changes in nutritional and physical activity requirements 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.

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 psychosocial 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 Leader

The clinical component of this course will let the student apply the nursing process in more complex situations. Students will be expected to assume beginning leadership responsibilities.

The Nurse as Practitioner 1

This course is designed to assist the students to practise the skills necessary in giving nursing care to clients in acute care, long-term care and rehabilitative facilities. The student will have opportunities to implement nursing measures that promote and restore health for selected clients and their families.

The Nurse as Practitioner 2

Through the laboratory component of this course, students will apply their acquired knowledge and skills in a variety of clinical settings. Complex health problems encountered across the lifespan will be the focus for nursing intervention.

The Nurse as Practitioner 3

The laboratory component of this course provides further opportunity to apply the acquired knowledge and skills in a variety of clinical settings. Major health problems encountered across the lifespan will be the focus for nursing interventions.

The Nurse as Practitioner 4

This course is designed to assist the students to practise the skills necessary in giving nursing care to clients across the lifespan in acute and

chronic care facilities. The student will have opportunities to implement nursing measures that promote and restore optimal health for selected clients and their families.

Utilizing the nursing process, the student will be able to organize and implement care for at least two clients of varying dependency.

Clinical experience is provided in at least one of the following services: Medical-Surgery, Obstetrics, Paediatrics, Rehabilitation.

The Nursing Assistant as Practitioner 712-221

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.

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.

Descriptions for Communications and General Studies courses can be found in the Human Studies section, beginning on page 154.

Hospitality, Tourism And Leisure Management



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 an arena (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
144-507	Arena Construction, Design and Maintenance	4
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 Apprentice Program

Campus: To be announced

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

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
609-103	Theory & Demo Food Preparation - Advanced

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 this 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 a period of eight weeks prior to the commencement of the program.

Additional Costs

Textbooks and consumables will be supplied by Humber College. Students will be expected to provide their own uniforms and knives.

Culinary Management Diploma Program

Curriculum

(Currently under revision)

Semester 1 (31 hours/week)	Credits
156-101 Baking 1	4
156-106 Small Quantity Food 1	4
156-103 Large Quantity Food 1	6
156-107 Kitchen Management 1	3
156-108 Food Theory 1	3
156-415 Hotel Butchery 1*	4
Communications 1	4
General Studies	3
Semester 2 (24 hours/week)	Credits
156-201 Baking 2	4
<i>Pre-Req:</i> 156-101 Baking 1	
156-202 Small Quantity Food 2	4
<i>Pre-Req:</i> 156-106 Small Quantity Food 1	
156-203 Large Quantity Food 2	6
<i>Pre-Req:</i> 156-103 Large Quantity Food 1	
156-207 Kitchen Management 2	3
<i>Pre-Req:</i> 156-107 Kitchen Management 1	
156-208 Food Theory 2	3
<i>Pre-Req:</i> 156-108 Food Theory 1	
Communications 2	4
Semester 3 (24 hours/week)	Credits
156-301 Baking 3	4
<i>Pre-Req:</i> 156-201 Baking 2	
157-309 Food Prep. Buffet 1	
<i>Pre-Req:</i> 156-203 Large Quantity Food 2	
156-307 Advanced International Cuisine 1	6
<i>Pre-Req:</i> 156-202 Small Quantity Food 2	
156-308 Kitchen Management 3	3
<i>Pre-Req:</i> 156-207 Kitchen Management 2	
156-306 Food Theory 3	3
<i>Pre-Req:</i> 156-208 Food Theory 2	
156-415 Hotel Butchery 1*	4
General Studies	3
Semester 4 (25 hours/week)	Credits
156-401 Baking 4	4
<i>Pre-Req:</i> 156-301 Baking 3	
156-407 Food Preparation Buffet 2	5
<i>Pre-Req:</i> 156-309 Food Preparation Buffet 1	
156-404 Advanced International Cuisine 2	6
156-408 Kitchen Management 4	3
<i>Pre-Req:</i> 156-308 Kitchen Management 3	
156-409 Food Theory 4	3
<i>Pre-Req:</i> 156-306 Food Theory 3	
General Studies	3

North Campus

Four semesters beginning in September

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 chefs—who seek growth as, Commis de Cuisine, Chefs de Partie, Sous Chefs and Chefs de Cuisine.

Admission Requirements

- Ontario Secondary School Diploma or equivalent or mature student status
- good health (medical certificate and chest x-ray)
- orientation session

Interests and Skills

- You must be interested in a service-oriented career.
- You must have good human relations skills, be able to work in teams, have good health and stamina, be willing to work hard and long hours, and have a desire to serve people.
- You should possess good leadership talents.
- You must be prepared to accept rigid discipline, particularly as it relates to safety, sanitation and personal hygiene, and dress code in all classes.

*Indicates that subject may be taken in either Semester 1, 2 or 3

Job Opportunities

As the industry expands there is a great demand for well-trained, creative cooks and chefs, knowledgeable not only in the preparation of fine International, French 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 (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.

Equine Studies

North Campus

Four semesters beginning September plus four weeks of field practice in May

Have you ever thought of preparing for a career with horses? If so, you might seriously consider our revised, Equine Studies program. The program is designed to offer you a number of options within the horse industry. Our one-year certificate program will prepare you to obtain employment as a skilled stable attendant. You will learn the rudiments of nutrition and horse health. In Practical Horse Care you will learn and perfect the necessary skills such as bandaging, braiding and clipping. Facility Operations will teach you how to drive a tractor, harrow an arena and make simple stable repairs. During May prior to graduation, you will be placed in the work force in order to gain additional skills and experience.

The second year of our program is highly specialized. Successful graduates of our certificate program and qualified candidates presently working in the industry may be admitted to either our Equestrian Coaching Diploma or Equine Management Diploma programs.

The intensive Equine Management Option is designed to build on to your previous knowledge and to prepare you for an entry-level position in the management of show, breeding, western or racing stables.

The Equestrian Coaching Option will prepare you to meet the requirements for certification as a qualified Level 1 or Level 2 instructor under the Canadian Coaching Development System.

Admission Requirements

(Certificate Program)

- Ontario Secondary School Diploma or equivalent
- interest in and suitability for employment in the horse industry
- a certificate confirming satisfactory physical health

Interests and Skills

- Self discipline, a sense of responsibility, and maturity.
- Ability to work as part of a team.
- Willingness to work hard and pride in accomplishment.
- Communications skills.

Job Opportunities

Horse Care and Equine Skills Certificate Program

Jobs exist as skilled labour in breeding farms, show stables, racing stables and boarding and training operations. Employment in Equine Care usually means a 5-6 day work week. The work is physically demanding and much of the work is done outdoors. Fringe benefits may include room and/or board, board for a horse, the opportunity to travel and opportunity for further education. One should anticipate a low salary.

Management Diploma Program

Racing operations, breeding farms, show stables, racetrack administration Western establishments and boarding and training operations and horse related businesses are all areas of possible employment as a junior manager.

Coaching Diploma Program

Full-time and part-time teaching positions in private and public stables competition coaching and training (beginner and intermediate level), freelance teaching, and pony club instruction are all areas of possible involvement for the certified level 1 or level 2 equestrian coach. There are a considerable number of part-time jobs available in the industry, but a limited number of full-time positions.

Curriculum

Semester 1 (24 hours/week)		Credits
Horse Care and Equine Skills Program - Certificate		
162-127	Basic Nutrition (Equine)	2
162-105	Horse Industry 1	2
162-126	Horse Health 1	2
162-129	Riding & Driving Skills 1	3
162-128	Practical Horse Care 1	3
162-130	Facility Operations 1	4
	Communications 1	4
	General Studies	3
Semester 2 (23 hours/week)		Credits
162-205	Horse Industry 2	2
162-219	Horse Health 2	3
162-223	Riding & Driving Skills 2	3
162-204	Practical Horse Care 2	2
162-222	Facility Operations 2	4
162-221	Breaking & Training	3
	Communications 2	4
	General Studies	3
Semester 3 (24 hours/week)		Credits
Management Diploma Program		
Pre-Requisite: Horse Care & Equine Skills Program or equivalent life experience		
162-314	Anatomy & Physiology 1	2
162-315	Nutrition 1 (Equine)	2
162-214	T.B. Racing Industry	2
OR		
462-110	Showing & Judging 1	2
162-318	Stable & Farm Mgmt. 1	2
162-308	Reproduction & Breeding 1	2
162-219	Horse Health 2	3
162-317	Facility Mgmt. 1	4
221-010	Elements of Accounting	4
	General Studies	3
Semester 4 (24 hours/week)		Credits
162-415	Anatomy & Physiology 2	2
162-416	Nutrition 2 (Equine)	2
162-417	Racetrack Administration	2
OR		
162-210	Showing & Judging 2	2
162-419	Riding Skills 2	3
162-420	Equine Exercise Physiology	2
162-421	Facility Mgmt. 2	4

162-418	Stable & Farm Mgmt. 2	2
162-052	Basic Keyboarding	2
	General Studies	3

Coaching Diploma Program

to take place of the (Equine Coach Preparatory Program) Pre-requisite: Horse Care and Equine Skills Program OR equivalent life experience. At the end of this program, students will take either the level 1 or level 2 exam administered by the Ontario Equestrian Federation. In order to take the coaching exams, you must be a Senior Member of the Canadian Equestrian Federation. This will cost those who do not have this status approximately \$45. The cost of the required Technical

Clinic is \$100 and the cost of the Examination is \$100. These costs are made payable to the Canadian Equestrian Federation before you take the Coaching Association of Canada exams. Applicants requesting admission under life experience equivalency will be required to submit an indepth resume. After receiving the resume, applicants may be asked to attend an intensive interview at the College with testing in Nutrition, Horse Health, Practical & Riding Skills.

Additional Costs

Personal riding, working and grooming equipment can total \$250.00. Student's work in the field for various periods during their two years in the program and are expected to pay for their meals and transportation during field practice periods. On the average, costs will not exceed the day-to-day costs of meals and travel to the College.

Coaching Specialization Program - Diploma

Semester 3 (24 hours/week)	Credits
162-314 Anatomy & Physiology 1	2
162-315 Nutrition 1 (Equine)	2
162-316 Equestrian Sports Psych.	2
162-111 Instructional Theory	2
162-110 Showing & Judging 1	2
162-318 Stable & Farm Mgmt. 1	2
162-125 Theory of Coaching 1	1
162-320 Teaching Skills 1	2
162-321 Equestrian Skills 1	5
162-322 Coaching Aware. Theory 1	1
General Studies	3
Semester 4 (24 hours/week)	Credits
162-415 Anatomy & Physiology 2	2
162-416 Nutrition 2 (Equine)	2
162-424 Coaching Aware. Theory 2	1
162-210 Showing & Judging 2	2
162-418 Stable & Farm Mgmt. 2	2
162-423 Teaching Skills 2	4
162-220 Theory of Coaching 2	1
162-422 Equestrian Skills 2	5
162-420 Equine Exercise Physiology	2
General Studies	3



Food Industry Technician Program

North Campus

Five 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 or equivalent
- Senior chemistry is highly 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	4
	<i>Pre-Req:</i> 115-115 Science of Food 1	
115-213	Nutrition 2	3
	<i>Pre-Req:</i> 115-113 Nutrition 1	
115-215	Research Techniques	4
115-313	Field Practice 1 (Food Industry Technician)	2
340-139	Food Chemistry 1	4
	<i>Pre-Req:</i> 340-152 Introduction to Chemistry of Foods	
	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
115-315	Supervisory Techniques	4
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	4
	<i>Pre-Req:</i> 115-310 Food Marketing 1	
115-425	Food Packaging	4
340-140	Food Chemistry 2	3
	<i>Pre-Req:</i> 340-139 Food Chemistry 1	
	General Studies	3
Semester 5		Credits
Internship 8 weeks (2 4-week field placements)		6



Hotel and Restaurant Management Diploma Program

Curriculum

Currently under revision)

Semester 1 (24 hours/week)		Credits
155-102	Hotel Front Office & Housekeeping Operations*	4
155-107	Intro. to Hospitality	3
155-109	Bar Management Theory*	2
155-110	Mixology*	2
155-111	Quantity Food Management - Theory 1	2
155-112	Quantity Food Management - Practical 1	4
155-205	Food & Beverage Service Practical*	6
155-209	Food & Beverage Service Theory*	2
	Communications 1	4
	General Studies	3
Semester 2 (25 hours/week)		Credits
155-102	Hotel Front Office & Housekeeping Operations*	4
155-109	Bar Management Theory*	2
155-110	Mixology*	2
155-205	Food & Beverage Service Practical*	6
155-209	Food & Beverage Service Theory*	2
155-206	Basic Finance Operation	4
155-207	Quantity Food Management - Theory 2	2
Pre-Req: 155-111	Quantity Food Management - Theory 1	
155-208	Quantity Food Management - Practical 2	4
Pre-Req: 155-112	Quantity Food Management - Practical 1	
	Communications 2	4
	General Studies	3
Semester 3 (24/25 hours/week)		Credits
155-309	International Gastronomy**	3
Pre-Req: 155-207	Quantity Food Management - Theory 2	
155-310	Food & Beverage Service Practical 2**	3
Pre-Req: 155-205	Food & Beverage Service Practical*	
155-209	Food & Beverage Service Theory*	
155-302	Hospitality Marketing**	4
155-303	Purchasing for Hospitality Industry	3
155-306	Advanced Finance Operations**	4
Pre-Req: 155-206	Basic Finance Operation	
155-307	Hospitality Computer Applications**	3
155-108	Practical Baking**	4
155-204	Hospitality Law**	4
155-407	Personnel in the Hospitality Industry	4
155-403	Food, Beverage and Labour Cost Control**	4
	General Studies	3

North Campus

Four semesters beginning in September and January

In the Hotel and Restaurant Management Program you receive training in both theoretical and practical aspects of hospitality, 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 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 or equivalent or mature student status
- good health (include medical certificate)
- attendance at an information-sharing session is strongly recommended

Interests and Skills

- You must be interested in a service-oriented career.
- You must like people, possess determination, be willing to work hard, have good health, 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 the fact!

Upon completion of the first two semesters of study, should you wish to get a head start in 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.

Semester 4 (23/25 hours/week)	Credits
155-309 International Gastronomy**	3
<i>Pre-Req:</i> 155-207 Quantity Food Management - Theory 2	
155-310 Food & Beverage Service Practical 2**	3
<i>Pre-Req:</i> 155-205 Food & Beverage Service Practical*, 155-209 Food & Beverage Service Theory*	
155-302 Hospitality Marketing**	4
155-307 Hospitality Computer Applications**	3
155-403 Food, Beverage and Labour Cost Control**	4
155-406 Menu Planning	3

155-408 Practical Baking**	4
155-204 Hospitality Law**	4
155-306 Advanced Finance Operations**	4
<i>Pre-Req:</i> 155-206 Basic Finance Operation	
155-304 Management Techniques for Hospitality	3
<i>Pre-Req:</i> 155-306 Advanced Finance Operations**	
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

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
- 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

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) \$125

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

Curriculum

Semester 1 (24 hours/week)		Credits
142-107	Introduction to Recreation and Leisure Services	6
142-109	Leisure Programming 1	5
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 (24 hours/week)		Credits
142-103	Leadership and Group Dynamics	2
142-207	Recreation Facilities	4
142-208	Leisure Programming 2	4
142-211	Human Growth and Development	3
142-209	Field Practice 2 (Recreation Leadership)	7
Pre-Req:	Field Practice 1 (142-112)	
	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
142-316	Field Practice 3	7
Pre-Req:	Field Practice 2 (142-209)	
	Intro to Sociology	3
Semester 4 (24 hours/week)		Credits
142-404	Fitness & Lifestyle Skills	3
142-409	Recreation Administration	6
142-411	Recreation for Specific Populations	3
142-412	Field Practice 4	6
Pre-Req:	Field Practice 3 (142-316)	
	General Studies	3

North 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 or equivalent
- detailed resume and two letters of reference
- medical certificate signed by a physician

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 level where more administrative tasks are performed. Most positions involve flexible schedules, often requiring some evening and weekend work.

Each semester there are additional travel or residential recreational 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.

Descriptions for Communications and General Studies courses can be found in the Human Studies section, beginning on page 154.

Ski Area Operation

North Campus

Post-Diploma program of three semesters (one being a field placement)

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

- mature student with two seasons of experience in at least one aspect of a ski resort or hotel (detailed resume and reference letter needed) or
- graduate of the Recreation Leadership or the Hospitality Management program.

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 1	4
Semester 2 (4 winter months)		Credits
	Field Work	7
Semester 3 (21 hours/week)		Credits
145-613	Ski Resort Food Management	3
145-611	Ski Patrol & Risk Management	3
145-605	Ski Lift Operation & Maintenance 2	3
<i>Pre-Req:</i> 145-501 Ski Lift Operation & Maintenance 1		
145-608	Area Layout & Design 2	3
<i>Pre-Req:</i> 145-505 Area Layout and Design 1		
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

Curriculum

Semester 1 (27 hours/week)		Credits
143-111	Tourism 1	2
143-116	Destinations Travel Geog.	4
143-120	Basic Ticketing	3
143-118	Travel Techniques A 1	3
143-119	Travel Techniques A 2	3
143-052	Basic Keyboarding	2
	Communications 1	4
	General Studies (2)	6
Semester 2 (23 hours/week)		Credits
143-217	Tourism 2 (The Pacific)	4
	Pre-Req: 143-116 Destinations Travel Geog.	
143-206	Tariff & Ticketing 1	4
	Pre-Req: 143-120 Basic Ticketing	
143-214	Office Procedures	3
143-215	Computer Concepts	2
	Communications 2	4
	General Studies (2)	6
Semester 3 (22 hours/week)		Credits
143-319	Tourism 3 (Europe, Africa, Asia)	4
	Pre-Req: 143-116 Destinations Travel Geog.	
143-304	Tariff & Ticketing 2	4
	Pre-Req: 143-206 Tariff & Ticketing 1	
143-318	Field Practice 1	3
	Pre-Req: All 1st and 2nd semester classes	
143-315	Product Update 1	2
143-316	Travel Techniques B 1	3
143-317	Travel Techniques B 2	3
143-309	Salesmanship	3
Semester 4 (20 hours/week)		Credits
143-409	Tourism 4 (The Americas & Caribbean)	3
143-404	Tariff & Ticketing 3	4
	Pre-Req: 143-304 Tariff & Ticketing 2	
143-414	Travel Techniques "C"	3
143-406	Product Update 2	2
143-416	Field Practice 2	3
	Pre-Req: 143-318 Field Practice 1	
143-009	Canadian Business Methods	3
143-407	Computer Update	2
	Pre-Req: 143-215 Computer Concepts	

Lakeshore Campus

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 or equivalent
- fundamental English and math skills are a basic requirement for success in this program. (Review courses will be available.)

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 should 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.



Course Descriptions

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 International Cuisine 1 156-307

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.

Advanced International Cuisine 2 156-404

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, presentation and taste of final product.

Anatomy & Physiology 1 162-314

In this study of the skeletal system, arthrology, and the blood and blood forming organs, many common unsoundnesses will be covered with respect to their location, cause and treatment. In addition, three body systems will be studied: the nervous, common integumentary and urogenital. The various ailments affecting these systems will be studied with emphasis on recognition, treatment and prevention.

Anatomy & Physiology 2 162-415

In this study of the structure and function of the digestive and cardiovascular systems, students will gain a greater understanding of the various ailments affecting these systems, with emphasis on prevention identification and treatment. This course also involves the study of the structures and functions of three

other body systems: respiratory, ophthalmic and muscular. The various abnormal states of these systems will be examined with an emphasis placed upon the understanding of the pathology and associated 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 144-507

These courses will provide the student with the opportunity to study the design of arena facilities in relation to the efficient use of space, traffic flow, maintenance, etc. The first course for the experienced practitioner will be of a more practical nature than the others, which will contain a greater degree of theory.

The principles and practices of the maintenance of Arena facilities. We will study both the day-to-day upkeep and routine seasonal operations, as well as the handling of emergency situations.

Baking 1 156-101

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.

Baking 2 156-201

This course develops the students' experiences into producing more advanced products such as japonaise, brandy snaps, danish pastries, black forest torte, special occasion gateau, wine jellies, souffles and bavaois.

Baking 3 156-301

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 gateaux, croissants and cheese cakes. The emphasis will be on quality and artistry.

Baking 4 156-401

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; chocolate and the assembling and decoration of wedding cakes. The emphasis will be on quality, cost control and artistry.

Bar Management Theory* 155-109

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.

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 is a Math Pretest.

Basic Keyboarding 204

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

Basic Nutrition (Equine) 162

In this course, students become familiar with common horse feeds horse feed terminology, the use of commercial products and the common rules of good feeding. Emphasis will be placed on practicality and feeding economically.

Basic Ticketing 143-D

Provides the basic, intermediate and advanced skill necessary for the calculation of simple and complex airfares on domestic and international routes. The complete course also covers Bank Settlement Plan reporting and the issuance of every type of airline ticket.

Beverage Management 155-106

This course provides a structured 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.

Breaking & Training 162-201

Students will work with unbroken two-year old Thoroughbreds, taking them through a progressive system of breaking and training. In the second half of the semester, unbroken grade horses will be used. The various pat-

theoretical and practical aspects of training and conditioning will be studied. Young horses will also be brought to load.

Canadian Business Methods 251-009

Designed to familiarize students with the various forces that affect and govern the conducting of business in Canada.

Teaching Aware. Theory 1 162-322

This course will comprise weekly one-hour discussion sessions covering such topics as horse and rider turnout for exam, oral preparation, current equine publications, familiarization with the rule book, lunging and long lining techniques, course walking and distance as well as uses and application of specialized equipment.

Teaching Aware. Theory 2 162-424

See course description for Teaching Aware. Theory 1 (162-322).

Computer Concepts 143-215

Provides the required skills and techniques in the use of airline automated systems. Students will be trained to use airline systems as a sales aid for instant and updated travel counselling. Currently, training is performed on the Canada Reservec system.

Computer Update 143-407

See course description for Computer Concepts (143-215).

Concessions 1 144-508

An examination of the procedures involved in ordering, storing and controlling the various concession items in an arena operation. Specifics such as types of stock, facility location and methods of displaying will be studied.

Destinations Travel Geog. 143-116

Designed to familiarize the student with the location of all travel countries and cities worldwide. This course

involves a considerable amount of structured self study.

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.

Equestrian Skills 1 162-321

This intensive riding program, both on the flat and over fences, prepares both horse and rider to meet the requirements of the Levels 1 and 2 equestrian coaching certificate. Correct body position, effective use of aids, longitudinal and lateral schooling of the horse, gymnastic jumping, course work cross-country jumping, 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 2 162-422

See course description for Equestrian Skills 1 (162-321).

Equestrian Sports Psych. 162-316

An introduction to the principles and concepts of motor learning and their application to the teaching of equestrian skills. You will study the distinction between learning and performance, the classification of motor skills, the learner and the environment. Equestrian skills will be analyzed and this analysis used as a basis for developing teaching techniques.

Equine Exercise Physiology 162-420

This course covers the basic function of the horse "how the animal works as a biological machine". It includes studies at the cellular, tissue and body systems level. Selected aspects of equine function and horse performance will also be covered. Muscle function and the dependence of muscle on other body systems to maintain function during exercise will constitute the main theme of the course. Other topics include such components as biological adaptation dimensional aspects of function, energy metabolism and nutrition.

Facility Mgmt. 1 162-317

This course will develop the student's managerial abilities in the areas of: personnel supervision; inventory control; ordering feed; tractor maintenance, repair and driving; jump design and building; paddock building and repair; maintenance and upkeep of records, as well as many other numerous skills required in the management and operation of a facility.

Facility Mgmt. 2 162-421

See course description for Facility Mgmt. 1 (162-317).

Facility Operations 1 162-130

Students will learn and practice the day-to-day skills that are utilized in the horse industry. Paddock construction, jump building and repair, tractor driving and maintenance, inventory control, arena harrowing, stall maintenance and repairs as well as many other skills will be covered.

Facility Operations 2 162-222

See course description for Facility Operations 1 (162-130).

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) 142-009

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).

Fitness & Lifestyle Skills 142-404

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 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 Practical* 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 Theory* 155-209

The course provides a detailed study of the role, functions, and duties of a dining room manager, catering-manager, 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 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 Preparation Buffet 2 156-407

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.

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 laid on practical applications, without too many technical details.

Food Theory 1 156-108

The course provides a detailed study of the basic theory of professional food preparation, as pertaining to the art of French cuisine.

Students will learn the culinary basics, terminology, technology and develop self-confidence toward food production.

Food Theory 2 156-208

Food Theory 2 is designed to give the student advanced knowledge in various types of cooking methods, food preparation, menu composition, fish, and meat dishes.

Food, Beverage and Labor Cost Control** 155-418

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.

Horse Health 1 162-128

This course will deal with common health problems of the horse. Based upon a discussion of the healthy horse, emphasis will be placed on common injuries and their treatment by practical first aid. The other major area of emphasis in this course will be common diseases of the major body systems, their symptoms and appropriate treatment.

Horse Health 2 162-218

This course will involve the basic study of conformation as it relates to unsoundnesses. Contents of the medicine cabinet, identification and occurrence of lameness problems and lameness care and therapy will also be discussed.

Horse Industry 1 162-188

The history, development and aims of many segments within the multi-faceted horse industry will be presented through guest lecturers, field trips, films and demonstrations. In addition, students will be kept up-to-date on current events in all areas of the industry. Employment opportunities for the student graduate will be discussed in the various topics covered.

Horse Industry 2 162-208

See course description for Horse Industry 1 (162-188).

Hospitality Computer Applications** 155-315

This course is designed to introduce the computer technology for the Hospitality Industry, including actual practice on mini-computers and the Remanco System especially 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 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 1* 156-415

This course provides a detailed study of the theory 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 on practical work with butchery tools, production safety and personal hygiene.

Hotel Front Office & Housekeeping Operations* 155-102

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.

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.

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.

Intro. to Hospitality 155-107

Course provides students with knowledge of the scope and profile of the hospitality industry. Included is an introduction to professional career planning, employment strategy, professional growth and status, and sanitation management and safety.

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 with particular emphasis on 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 with particular emphasis on philosophy and operation.

Kitchen Management - Advanced 609-104

Kitchen Management will develop other key areas of management concerns within the kitchen operation. These are: a) Nutrition: the study of food properties and the value of the food to the human body system; and b) Personnel: ensuring that productivity matches the investment made in the form of labour cost.

The value of these areas cannot be underestimated, and a successful kitchen administrator must have a comprehensive knowledge of the above areas.

Kitchen Management - Basic 609-004

The course is designed to introduce various concepts in the planning and administration of the kitchen. The chef in the kitchen of today's hospitality industry needs to have an extensive knowledge of costing food items, as well as controlling labour costs. This course is designed to provide the student the basic mathematical functions associated with the kitchen.

Kitchen Management 1 156-107

This subject will enable the student to realize the importance of kitchen sanitation, plan nutritionally-sound menus, as well as develop an insight into the personnel applications of the kitchen operation from a managerial point of view.

Kitchen Management 2 156-207

This course will enable the student to develop menu costings for various types of restaurant menus; analyse different cost centers within the kitchen; and put together an overall operating budget for the kitchen operation.

Kitchen Management 3 156-308

This course will teach the student how to develop a food, beverage and 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.

Kitchen Management 4 156-408

The professional chef 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.

Large Quantity Food 1 156-103

This course provides a basic study for 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.

Large Quantity Food 2 156-203

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.

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.

Management Techniques for Hospitality 155-304

Students will study the theory of management, planning, organization and the systematic technique of management. They will become familiar with approaches to control, financial management, the concept of marketing, management of energy, and feasi-

bility studies as they relate to management today.

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.

Menu Planning 155-406

This course provides a detailed study of menu evolution, the modern concept of management by menu, plus the constraints in menu planning, finances analysis and operational control. The student will learn menu mechanics and merchandising for food and liquor; methods of integrating the menu into the operational systems of purchasing, production and services.

Microbiology 340-141

This course will furnish the student with an understanding of basic microbiology and its application in food preservation, preparation and sanitation.

Mixology* 155-110

The student will be able to mix the top 30 cocktails with an understanding of the lay-

out, mixing methods and control of a bar.

Nutrition 1 115-113

A knowledge of nutrition will form a basis for understanding how nutrition is an important element in food technology, preparation 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 1 (Equine) 162-315

Learning the fundamentals of animal nutrition will help you understand feed nutrients, why the horse needs them, where and how he obtains them and how he uses them. Digestive physiology, lab tests to ensure nutrient adequacy and identification of common grain and feed supplements are other subject areas covered.

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 (Equine) 162-416

Using the theoretical knowledge of nutrients and nutrient requirements discussed in Nutrition 1, students will now apply their knowledge to ration formulation. Identification of common hays, pasture management and investigating commercial feed products will also be covered. Feeding the special horse; foal broodmare, the fat horse etc. will be discussed.

Office Procedures 143-214

Practical coverage of specific procedures and practices relative 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, Parks Canada and the National Parks System, organized camping and evaluation, current environmental concerns, and professional associations and organizations of particular interest to outdoor recreationists.

Personnel in the Hospitality Industry 155-411

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. 144-515

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** 155-106

This course gives the student a working knowledge of bakery recipes and costs. Practical experience in most aspects in the production of yeast goods pastry products, cakes and international desserts will be developed.

Practical Food Preparation - Advanced 609-103

This course of the Cook 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, meringues, mousses, sorbets, petits fours, 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.

Practical Food Preparation - basic 609-002

This course provides basic practice in professional food preparation. The student will practise: culinary basics, fast-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 patisserie 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 1 162-128

Students review the many aspects of horse care and handling including grooming; marking-out; trimming; clipping; the selection, care, repairing and fitting of English and Western tack; lameness; shoeing; methods of first aid; T.P.R.; general aspects of health and disease; nursing; wound care; first aid; bedding materials; stable management; preparation for travel and loading. Students will be supervised for an additional two hours per week practicing skills learned in class.

Practical Horse Care 2 162-204

This course aims at perfecting some of the skills acquired in Practical Horse Care 1 (i.e. clipping) and will introduce several new aspects of horse care: bandaging; the care, fitting and parts of harness; lunging; braiding manes and tails; trimming and showing. You will be supervised for an additional two hours per week, practicing skills learned in class.

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 155-303

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.

Racetrack Administration 162-417

This course studies the various positions and their functions in the management of racetracks. It will include a placement in one of these areas such as: mutual clerk, publicity, racing secretary's office, etc.

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 so that we may 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; 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. Salomon 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.

Reproduction & Breeding 1 162-308

A detailed study of reproductive physiology stressing the normal regulation of sperm and ova development, conception, gestation, parturition and lactation are the major topics covered in this course. Considerable time is spent studying the estrous cycle so that proper detection of estrus and mating times are apparent.

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 1**162-129**

This course will provide the student with the correct basics in English and western equitation as well as pleasure driving. The riding courses cover such major areas as correct body position, effective aid usage and the psychology of horse control in a sequential manner. The driving section will teach the students harnessing techniques, methods of driving and familiarization with various vehicles.

Riding & Driving Skills 2**162-223**

See course description for Riding & Driving Skills 1 (162-129).

Salesmanship 143-309

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 is the study of bacterial development within the kitchen due to poor hygienic practices.

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**162-110**

This course will teach the student the principles of conformation assessment as they relate to different breeds of horses. The rules, regulations and judging of hunters, jumpers, equitation, fine harness, draft and coaching classes will be covered as well as 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 at a major horse show (Royal Winter Fair) in administration, tack booth, or horse area of their interest.

Showing & Judging 2

Refer to course description for Showing and Judging 1 (162-110).

Ski Area Admin. & Finance

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 operation including even analysis, scheduling of projects, budgeting and financial controls.

Ski Area Field Research

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 snow making equipment will be looked at, at this time to enhance students theoretical knowledge.

Ski Lift Operation & Maintenance 1 145-58

In this course, the student will develop knowledge 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 2 145-68

To provide the students with an understanding of ski lift design construction and maintenance. Chairlifts and bars will be discussed in detail including various mechanical and electrical components. To compliment the technical part of this course the students

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 liability 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 of 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 Marketing 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.

Small Quantity Food 1 156-106

This course will familiarize students with basic culinary preparations such as stocks, soups and sauces, kitchen equipment and knife manipulation in a controlled lab environment.

Small Quantity Food 2 156-202

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.

Snowmaking & Hillgrooming 1 145-502

The student will be exposed to principles of snowmaking equipment used in the snowmaking 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.

Stable & Farm Mgmt. 1 162-318

This course will introduce you to the planning process involved in designing and constructing an equine facility. Topics will include: choosing a location, stable construction and design, facility and farm layout, landscaping and fencing. In addition the course will also touch on personnel man-

agement, the role of the manager, stable and farm safety, and computer applications with some hands-on experience. Field trips to local farms will be used to support the classroom material.

Stable & Farm Mgmt. 2 162-418

As a continuation of Stable and Farm Management 1, this course examines the business operation of a farm facility. Marketing and advertising, financial planning, management and control, record keeping, labour, financing i.e. leasing, buying, renting, organizational structure, taxation, insurance, the law related to the horse, and licensing will be some of the topics covered.

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 operation of an arena, the implications of public liability and other legal concerns in the arena industry.

Supervisory Techniques 115-315

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.

T.B. Racing Industry 162-214

Racing Industry 1 involves a study of the many administrative and technical aspects involved in Thoroughbred racing. Students gain a comprehensive picture of: backstretch activities; conditioning methods; the administration and control of afternoon racing; government involvement in the Thoroughbred industry; Thoroughbred history; and the selection principles. Also involved in this course is a two-week field placement at the Thoroughbred track.

Tariff & Ticketing 1 143-206

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.

Tariff & Ticketing 2 143-304

See course description for Tariff & Ticketing 1 (143-206).

Tariff & Ticketing 3 143-404

See course description for Tariff & Ticketing 1 (143-206).

Teaching Skills 1 162-320

Students will gain teaching experience acting as apprentice coaches with one of the Centre's chief instructors in both arena and stable situations. In addition, they will act as assistant instructors for a ten-week evening course on Introduction to Riding.

Teaching Skills 2 162-423

See course description for Teaching Skills 1 (162-320).

Theory & Demo Food Preparation - Advanced 609-103

This course is an ongoing theory and demonstration 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.

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 1 162-125

The Ontario Coaching Development Program provides amateur coaches with formal training in the science and art 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, leader-

ship and communication, sport psychology, motor learning and motivation, growth and development, biomechanics, exercise physiology, sports medicine and principles of athletic conditioning.

Theory of Coaching 2 162-220

See course description for Theory of Coaching 1 (162-125).

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.

Tourism 2 (The Pacific) 143-217

See course description for Tourism 1 (143-111).

Tourism 3 (Europe, Africa, Asia) 143-319

See course description for Tourism 1 (143-111).

Tourism 4 (The Americas & Caribbean) 143-409

See course description for Tourism 1 (143-111).

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 in-depth 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

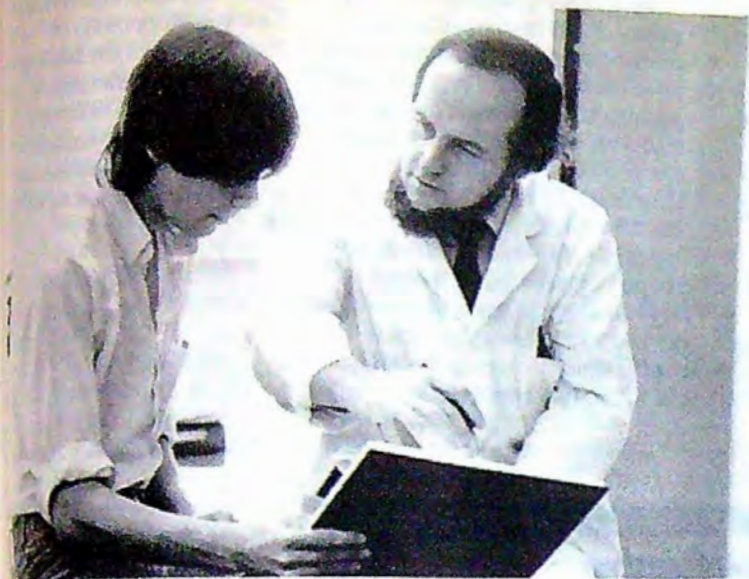
See course description for Travel Techniques A 1 (143-118).

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.

Descriptions for Communications and General Studies courses can be found in the Human Studies section, beginning on page 154.

Human Studies



Academic Upgrading

Lakeshore and/or Keeleisdale 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 Upgrading 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.

Further details on these 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 vous présenter un programme conçu pour les femmes qui veulent réorienter leur carrière ou réintégrer le monde du travail.

C'est un programme de 8 semaines offert à quelques reprises au courant de l'année 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 to communicate effectively. To graduate from most one or three year post-secondary programs, you must obtain credits in three courses: Language Skills, Communications 1 and Communications 2. Students in shorter programs will complete their Communications requirements designated on a seasonal basis. You may obtain credit by successfully completing the courses or by being granted exemptions. Based on the pre-test administered in the first week of classes, you will be placed in Language Skills,

Communications 1 or Communications 2. If you have equivalent post-secondary or relevant life experiences, you may apply for exemptions from Communications 2.

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 argument with footnotes and a bibliography.

The Communications 2 course builds on and reinforces 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. Some of the speaking and writing assignments will be on vocationally-relevant topics.

English As A Second Language

Basic E.S.L.
This is a 24-week beginners course which emphasizes the 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.

Advanced E.S.L.
A 12-week program designed for students with a professional background in which improvement in both oral and written skills are emphasized as preparation for working in their profession or pursuing further study. Admission is by interview and tests (by appointment only). Classes are held at Keele campus.

NOTE:
For information, please call 763-5141, extension 55.
Students may be eligible for assistance through their local Canada Employment Centre.

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.

Admission Requirements

- Ontario Secondary School Diploma or equivalent or mature student status

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 probably be required to complete General Studies courses before graduating. General Studies classes are not program related. In most cases, you will be enrolled in General Studies 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 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 - 1:20 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

French Programming - Cours en français

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 highschool 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 déjà un programme: la Bureautique.



Programmes en Français/French Programs/Nouveauté/Défi/Courier

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
ou Niveau 4: Cours Préparatoires à la Formation Professionnelle

Dactylo = 40 mots/minute

Titres des professions:

Opérateur sur ordinateur
Vendeur-technicien du traitement électronique des données

Secrétaire de direction
Secrétaire 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 les frais d'inscription et vous remettra une allocation hebdomadaire pour la durée des cours. Pour obtenir des renseignements au sujet de l'éligibilité au programme, contacter le Centre d'Emploi du Canada.

Prêt aux Etudiants

Le gouvernement de l'Ontario possède un plan de prêt pour les étudiants qui y sont éligibles. 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.

Contenu

1er Semestre

	Crédits
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 systèmes informatisés	4
941-136 English Report Writing	4

2ième Semestre

	Crédits
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 comptabilité	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

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, personality deviations, psychosomatic reactions, and situational disorders will be examined. Since this course does not have as one of its aims the preparation of therapeutic treatment methods will be given limited attention.

Aesthetics 932-106

The lectures will cover the various philosophies of art and treat these by way of example in the history of art, architecture and design. Contemporary concerns will be covered by the students who will write 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 living our constant concerns about self, others and how we relate to our environment is appropriate for all cultures. By investigating man in his various guises, 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 poor 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 Can-

ada'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 multi-faceted 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 1 941-102

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 1 941-115

A course in the fundamentals of verbal and written communication, including report and letter writing and public speaking.

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 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 questions and answers in past and future tenses.

Crime and Punishment in Literature 955-103

Through specific examples of myth and action, 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 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 psychological and psychological 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 heart-breaks. 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.

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.

Future, The 923-131

This course is an attempt to provide the student with current information and views of natural and social scientists, business and industrial experts, and government officials about what the future holds for us. We will explore many fascinating questions as to what life will be by the year 2000.

Heroic Fantasy 955-150

The world of fantasy provides the reader with an extra facet to expand his mind and

History of Western Canada 933-100

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 invariably. 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 deals with specific work situations, difficulties of close team cooperation both to the individual and the team, the effects of stress, ways of resolving interpersonal conflicts and effective communications.

Human Resources Development 934-129

The role of the contemporary law enforcement officer in today's society is an extremely complex one. The

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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 TV, 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.

Interpersonal Skills for Pharmacy Personnel 934-132

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 professional 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.

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. 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.

Le Francais Par La Litterature 962-601

Ce cours a ete concu pour les etudiants non-franco-phones bilingues qui desirent trouver un milieu pour utiliser le francais d'une facon formelle et informelle. Le cours est base sur la lecture et la discussion d'auteurs litteraires du XXe siecle. La participation aux discussions s'averent essentielle.

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 fellow-man, 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.

Magazines as Literature 955-142

This course will concentrate on the current international field of quality journalism. The core of the course centres around the American and British elite, the best journalism available in all areas - politics, entertainment, fashion, sports, and human interest.

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.

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.

Microeconomics 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.

Movie Themes and their Directors 955-302

In this course students view popular, feature films seriously. We shall examine the work of three outstanding directors. By viewing an early and a recent film of each, we shall try to determine whether or not they have matured in their film-making. The emphasis will be on the themes and statements each of the directors is making, rather than on the technical aspects of the film. (Enrollment limited).

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 course 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.

Parapsychology 924-118

This course is designed to give you a general understanding of psychic phenomena-phenomena which do not fit into the conventional framework of psychology. This introduction will cover the history of parapsychology, and such manifestations as telepathy, clairvoyance, precognition, retrocognition and psychokinesis.

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 Geography: International Affairs 927-101

This is a course in international affairs and current events from a geographical point of view. The countries of the world are examined to determine what makes them powerful or weak. An important feature of the course is the discussion of current events among students from many parts of the world.

Political Geography: The Geography of International Affairs 971-101

This course involves a study of the nation-state, its geography, its policies and the fac-

tors, internal and external, that determine its power. This course will bring into focus the world of current national and international events free from the myth and ideology from which such events are all too often viewed. Topics include locations, boundaries, law of the sea, population, resources and international disputes. A large part of the course will consist of a discussion of current international events among students from many parts of the world.

Political Science for Public Relations 922-111

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 1 922-102

Refer to course description of Political Science for Radio Broadcasting (922-107).

Political Science 2 for Journalism 922-106

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 923-104

This course provides students the opportunity to study the problems associated with world over-population. Topics such as the problem of food

...city and world hunger, fer-
...control, social change,
...security and technology,
...immigration and world
...city will be studied.

Psychology - Abnormal 923-202

Through the use of lectures,
of audio-visual materials,
this course will focus on a
of psychological per-
reviews. Then, through the
of the case method, a vari-
of abnormal conditions
including schizophrenia,
depressive psychosis,
deviations, psychoso-
reactions, and situa-
l disorders will be
sained. Since this course
es not have as one of its
es the preparation of thera-
es, treatment methods will
ven limited attention.

**Psychology - An-
roduction** 924-101

The purpose of this course
introduce you to some
principles of human
behaviour, and through dis-
sion to relate these princi-
es to our own experiences,
reby gaining a better
nderstanding of ourselves
d others.

Psychology - Social 924-115

Social psychology concerns
with the social nature of
human person; those
al influences that have
acted, and continue to
fect our behaviour. We will
amine the media - our
television, and movies.
hat are their effects on our
role identity? How do they
fect our predispositions
ward violence and aggres-
? The psychology of
stander apathy, blind obedi-
ce to authority and strength
s examined. Other topics
clude humour, leadership,
non-verbal communica-
and self-esteem.

Psychology of Grief 924-111

This course was designed in
cooperation with the faculty of
Funeral Service Education
rogram for the students in
rogram. It encompasses
ents of philosophy and
ciology so that the aspects of

the psychology of grief may be
examined from a very practi-
cal perspective. Successful
completion of this course will
prepare the student to deal
more sensitively and helpfully
with those whom he/she has
the opportunity to serve in the
practise of Funeral Service.

**Racial and Ethnic Group
Relations** 925-203

This course has been specifi-
cally designed for students
intending to enter occupations
which have a significant
amount of interaction with
persons from differing back-
grounds which usually place
them in a minority group sta-
tus. It is believed by many
social scientists, government
leaders and law enforcement
officials that a knowledge of
the cultural differences of peo-
ple and a grasp of the nature
of prejudice and discrimina-
tion is essential if we are to
ward off confrontations and
decrease racially-based hostili-
ties.

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 signifi-
cance 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 expe-
rience, 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 him-
self artificially. Today, scien-
tists have made into fact what
was only science fiction in
Mary Shelley's era. Now that
cloning, organ transplanta-
tion, test-tube babies, and
robotics have arrived, more
and more people are discover-

ing that science fiction has a
valuable role to play in shap-
ing an awareness of the
benefits and dangers of tech-
nological 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, under-
stood and appreciated in one
sitting. Each story will be
dealt with as something which
illuminates our own lives as
much as presenting the pub-
lished thoughts of a writer.

Sport and Society 923-129

This course examines sport
from a sociological perspec-
tive. It analyses human beha-
viour 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 poli-
tics 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 litera-
ture throughout the ages.
From the 18th century Gothic
works like The Castle of
Otranto, through the Victo-
rian world of Dracula, to mod-
ern masters of fright like
Stephen King, you will dis-
cover 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 vari-
ous disciplines of writing for
radio, television, newspapers,
and magazines. To this end,
students will examine and ana-
lyze news reports, articles,
plays and short stories. Stu-
dents will study the techniques
of description, characteriza-
tion, 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 con-
sequences 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 dis-
cussions 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 mak-
ers of Western thought with
some references to their East-
ern 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 Japanning of Canada 922-120

No country, aside from the
U.S.A., is so strongly
influencing the Canadian eco-
nomic 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 tech-
niques of film involving pho-
tography, lighting, editing,
etc. will be discussed and the
class will view films which
illustrate these techniques. A
discussion of the basic prob-
lems that face all film-makers
in telling a story in visual
terms will be an essential ele-
ment 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.

Women in Film and Literature 955-196

This course will consider works by and about women and will present a wide range of female characters as shown

in literature and films. From an explanation of theme, character development, plot, writing style and literary devices, you will come to a better understanding of women in literature.

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 be direct 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.

Descriptions for Communications and General Studies courses can be found in the Human Studies section, beginning on page 154.

Technology

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 or equivalent
- grade 12 English, grade 12 technical or academic mathematics and a minimum of 2 credits in any combination of senior level science and program related technical courses (Physics at the senior level is strongly recommended)

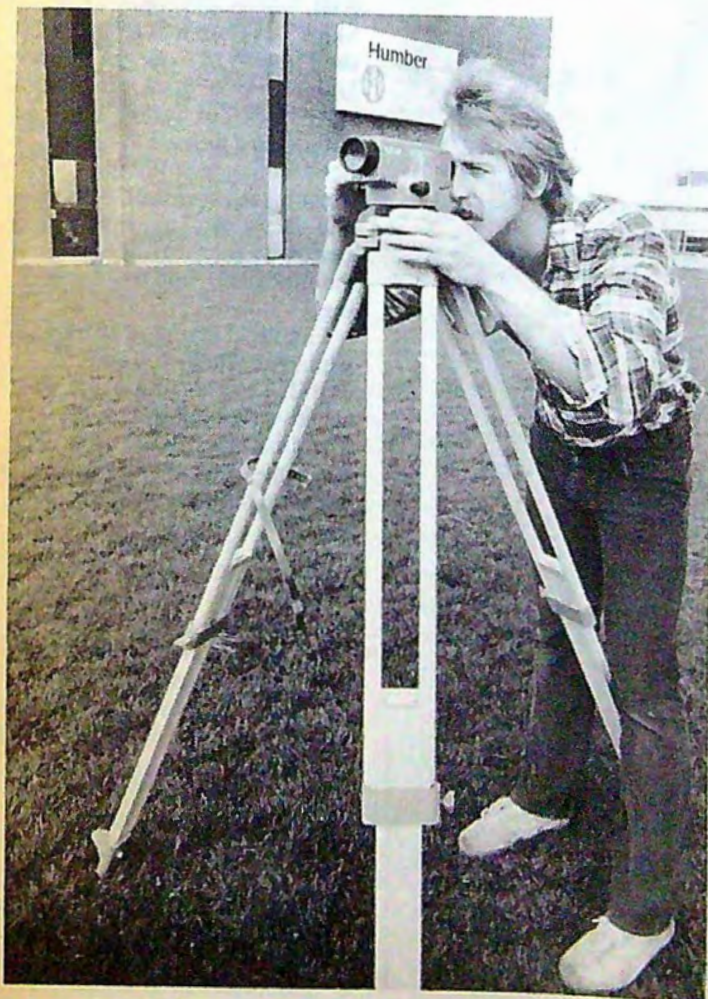
Job Opportunities

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 Draftsman.

Curriculum

Semester 1 (25 hours/week)		Credits
330-383	Photogrammetry 1	3
330-495	Photogrammetry 2	4
330-486	Survey Computations 1	2
330-038	Surveying 1	
330-230	Mathematics 1	4
330-425	Survey Drawing 1	2
	Communications 1	4
Semester 2 (28 hours/week)		Credits
330-460	Advanced Photogrammetry	4
330-497	Cartography	4
330-039	Survey 2	6
	<i>Pre-Req:</i> 330-038 Surveying 1	
330-426	Survey Drawing 2	2
	<i>Pre-Req:</i> 330-425 Survey Drawing 1	
330-372	Air Photo Interpretation	3
330-487	Survey Computations 2	3
	<i>Pre-Req:</i> 330-486 Survey Computations 1	
380-209	Computer Programming 1	3
	<i>Pre-Req:</i> 330-230 Mathematics 1	
	Communications 2	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).



Air Conditioning, Refrigeration Engineering Technician

Curriculum

Semester 1 (27 hours/week)		Credits
380-230	Mathematics 1	4
380-203	Physics (Heat, Light & Sound)	3
380-431	Electricity 1	3
320-020	Refrigeration 1	4
320-430	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	3
Pre-Req:	330-230 Mathematics 1	
380-191	Physics (Mechanics & Waves)	3
320-021	Refrigeration 2	4
Pre-Req:	320-020 Refrigeration 1	
320-253	Design Loads 2	3
Pre-Req:	320-252 Design Loads 1	
320-251	Psychrometrics	3
320-316	Circuits & Schematics Drafting	3
Pre-Req:	330-431 Electricity 1	
	Communications 2	4
	General Studies	3
Semester 3 (25 hours/week)		Credits
380-208	Mathematics 3 (Mgmt. Appl)	3
Pre-Req:	380-205 Mathematics 2	
380-432	Electricity 2	3
Pre-Req:	320-316 Circuits & Schematics Drafting	
320-239	Computer Applications	3
320-256	Industrial Org. & Mgmt	3
320-254	Design Loads 3	3
Pre-Req:	320-253 Design Loads 2	
320-433	Hydraulics & Steam Syst. 1	3
320-029	Comm. Syst. 1	4
Pre-Req:	320-021 Refrigeration 2	
	General Studies	3

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.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics and a minimum of 2 credits in any combination of senior level science and program-related senior level technical courses (Physics at the senior 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.

Semester 4 (22 hours/week)		Credits
380-206	Calculus 1	3
Pre-Req:	380-236 Mathematics for Chem. Ty.	
320-317	Thermodynamics	2
Pre-Req:	380-203 Physics (Heat, Light & Sound)	
320-318	Refrigeration 3	4
Pre-Req:	320-021 Refrigeration 2	
330-502	Comm. Syst. 2	3
Pre-Req:	320-029 Comm. Syst. 1	
320-319	Combustion Technology	4
330-436	Solid State HVAC Controls	3
Pre-Req:	330-432 Electricity 2	
	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.

Architectural Design Technician (Co-op Program)

North Campus

Four academic semesters and two 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.

Graduates of this program may be eligible to enter the Architectural Design Technologist (Co-op) Program.

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 Architectural students will be initially enrolled as Architectural Technology 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 or equivalent
- grade 12 English, grade 12 technical or academic mathematics
- minimum of 2 credits in any combination of senior level science and program related senior level technical courses (drafting and physics at the senior level are strongly recommended)

Curriculum

Residential Construction

Semester 1	Credits
330-539 Residential Drafting & Detailing	6
330-540 Arch. Graphics 1	4
330-541 Materials & Methods of Const. 1	3
380-199 Math 1	4
330-542 Intro. to Management Communications 1	4
General Studies	3

Industrial Construction

Semester 2	Credits
330-543 Industrial Drafting & Detailing <i>Pre-Req:</i> 330-539 Residential Drafting & Detailing	6
330-544 Materials & Methods of Const. 2	3
330-545 Fundamentals of Building Engineering	3
330-546 Intro. to Environmental Systems	3
280-200 Math 2 <i>Pre-Req:</i> 380-199 Math 1	3
Communications 2	4
General Studies	3

8 Month Co-op Work Term

Commercial Construction

Semester 3	Credits
330-547 Commercial Drafting & Detailing <i>Pre-Req:</i> 330-543 Industrial Drafting & Detailing	8
330-548 Materials & Methods of Const. 3	3
330-549 Arch. Graphics 2 <i>Pre-Req:</i> 330-540 Arch. Graphics 1	2
330-550 Building Engineering (Concrete)	3
330-551 Environmental Systems <i>Pre-Req:</i> 330-546 Intro. to Environmental Systems	4
330-552 Architectural CADD 1 <i>Pre-Req:</i> A through knowledge of architectural drafting and detailing	3
380-201 Mathematics 3 <i>Pre-Req:</i> 380-200 Mathematics 2	3

Multi-Purpose Construction

Semester 4	Credits
330-553 Arch. Drafting & Detailing	8
330-554 Building Engineering (Composite)	3

330-555 Arch. CADD 2 <i>Pre-Req:</i> A thorough knowledge of architectural drafting and detailing	3
330-556 Intro. to Surveying	3
330-557 Specifications & Estimating	4
General Studies	3

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.

**Architectural Design Technologist
(Co-op Program)**

Curriculum

3 Month Co-op Work Term

Semester 5	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
Semester 6	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	4
330-567 CADD Studio 2	3

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 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 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

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics
- minimum of 2 credits in any combination of senior level science and program related senior level technical courses (drafting and physics at the senior level are strongly recommended)
- in order to continue into the third year of this program, students must meet the requirements for the Architectural Design Technician Diploma

with a minimum grade point average of 70%

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.

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 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.

Curriculum

8 Month Co-op Work Term

Semester 5	Credits
330-568 Advanced Drafting (Residential)	8
330-560 Life Cycle Costing	3
330-575 Intro. to Urban Planning	3
330-562 CADD Studio 1	3
330-569 Quantity Surveying & Estimating	4
330-570 Construction Admin. (Contracting)	4
Semester 6	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
330-574 Business Management	3

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 work terms.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics
- minimum of 2 credits in any combination of senior level science and program related senior level technical courses (drafting and physics at the senior level are strongly recommended)
- in order to continue into the third year of this program, students must meet the requirements for the Architectural Design Technician Diploma with a minimum grade point average of 70%

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 become a sales representative for a construction equipment manufacturer. You could become a building inspector, or develop technical details for a window manufacturer.

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 major areas:

Analytical or Quality Control Laboratories

Your main function as an analyst is to ensure that all materials purchased or sold by the company meet certain requirements. You may determine if an ore contains enough copper 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 experiments 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 measles vaccine. With your background from Humber College and additional experience, you can advance to a responsible position in this expanding field.

Chemical Laboratory Technician

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 <i>Pre-Req:</i> Language Skills or equivalent.	4
General Studies (2)	6
Semester 2 (25 hours/week)	Credits
340-149 Stoichiometry <i>Pre-Req:</i> 340-153 Chemistry (Intro)	3
380-238 Electrical Measurements <i>Pre-Req:</i> 380-237 Physics for Chem. Ty.	4
340-055 Organic Chemistry 1 Lecture <i>Pre-Req:</i> 340-153 Chemistry (Intro)	2
340-056 Organic Chemistry 1 Lab <i>Pre-Req:</i> 340-153 Chemistry (Intro)	4
340-154 Chemistry <i>Pre-Req:</i> 340-153 Chemistry (Intro)	4
340-123 Introductory Microbiology <i>Pre-Req:</i> 340-153 Chemistry (Intro)	4
941-103 Communications 2 <i>Pre-Req:</i> 941-102 Communications 1	4
Semester 3 (25 hours/week)	Credits
340-155 Organic Chemistry 2 Lecture <i>Pre-Req:</i> 340-055 Organic Chemistry 1 Lecture, 340-056 Organic Chemistry 1 Lab	3
340-061 Organic Chemistry 2 Lab <i>Pre-Req:</i> 340-055 Organic Chemistry 1 Lecture, 340-056 Organic Chemistry 1 Lab	4
340-058 Analytical Chemistry 1 Lecture <i>Pre-Req:</i> 340-149 Stoichiometry	4
340-156 Analytical Chemistry 1 Lab <i>Pre-Req:</i> 340-149 Stoichiometry	6
340-157 Methods of Microbiology <i>Pre-Req:</i> 340-123 Introductory Microbiology	5
380-206 Calculus 1 <i>Pre-Req:</i> 380-236 Mathematics for Chem. Ty.	3
Semester 4 (25 hours/week)	Credits
340-150 Physical Chemistry <i>Pre-Req:</i> 340-149 Stoichiometry	3
380-192 Comp. Prog. for Chem. Ty. <i>Pre-Req:</i> 380-236 Mathematics for Chem. Ty.	3
340-062 Lab Instrumentation <i>Pre-Req:</i> 340-149 Stoichiometry	4

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 Technology 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 Technology 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.

Note: All chemical programs are structured to allow qualified students to enter into a co-op work program with participating industries.

340-063 Lab Instrum. Appl's. <i>Pre-Req:</i> 340-149 Stoichiometry	4
340-158 Environmental Microbiology <i>Pre-Req:</i> 340-123 Introductory Microbiology	3
380-220 Statistics <i>Pre-Req:</i> 380-236 Mathematics for Chem. Ty.	3
General Studies	3

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics and a minimum of 2 credits in any combination of senior level science and program-related senior level technical courses (physics and chemistry at least at the general level are strongly recommended)
- students who can demonstrate competence in first semester mathematics and physical science subjects (i.e. Grade 13 graduates) as determined by College tests, may be directly admitted into the second semester. Such students must satisfy the English Communications and General Studies requirements of the College to graduate.

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.

Chemical Technologist

Curriculum

Semester *1, 2, 3 & 4 are the same as Chemical Laboratory Technician curriculum - see page 167

Industrial Option

Semester 5 (25 hours/week)	Credits
340-066 Analytical Chem. 2 <i>Pre-Req:</i> 340-058 Analytical Chemistry 1 Lecture	4
340-159 Analytical Chem. 2 Lab <i>Pre-Req:</i> 340-058 Analytical Chemistry 1 Lecture	5
340-160 Chem. Thermodyn. & Kinetics <i>Pre-Req:</i> 340-150 Physical Chemistry, 380-206 Calculus 1	4
340-161 Momentum & Heat Transfer <i>Pre-Req:</i> 340-150 Physical Chemistry	4
340-146 Instrumentation for Chemical Processes	4
340-163 Biochemistry <i>Pre-Req:</i> 340-061 Organic Chemistry 2 Lab, 340-155 Organic Chemistry 2 Lecture	4

Semester 6 (25 hours/week)	Credits
340-164 Industrial Organic Chem. <i>Pre-Req:</i> 340-061 Organic Chemistry 2 Lab, 340-155 Organic Chemistry 2 Lecture	4
340-071 Industrial Organic Chem. Lab <i>Pre-Req:</i> 340-155 Organic Chemistry 2 Lecture	4
340-165 Polymers & Composites <i>Pre-Req:</i> 340-155 Organic Chemistry 2 Lecture, 340-150 Physical Chemistry	4
340-144 Technical Report	1
340-166 Chem. Separation Processes <i>Pre-Req:</i> 340-150 Physical Chemistry	4
340-147 Princ. of Process Control <i>Pre-Req:</i> 340-150 Physical Chemistry	4
340-073 Biochemistry Lab <i>Pre-Req:</i> 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 <i>Pre-Req:</i> 340-058 Analytical Chemistry 1 Lecture	4
340-159 Analytical Chem. 2 Lab <i>Pre-Req:</i> 340-058 Analytical Chemistry 1 Lecture	5
340-160 Chem. Thermodyn. & Kinetics <i>Pre-Req:</i> 340-150 Physical Chemistry, 380-206 Calculus 1	4
340-163 Biochemistry <i>Pre-Req:</i> 340-061 Organic Chemistry 2 Lab, 340-155 Organic Chemistry 2 Lecture	4
340-127 Food Microbiology <i>Pre-Req:</i> 340-123 Introductory Microbiology	4
340-148 Microbial Genetics <i>Pre-Req:</i> 340-123 Introductory Microbiology	4

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 Technology 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

- Ontario Secondary School Diploma or equivalent
- Grade 12 English, grade 12 technical or academic mathematics and a minimum of 2

credits in any combination of senior level science program-related senior level grade 12 technical courses

- senior credits in physics and chemistry are strongly recommended
- in order to continue into third year of Chemical Technology options, students must meet requirements for the Chemical Lab Technician Diploma with a minimum grade point average of 75%. Students who can demonstrate competence in first semester mathematics and physical science subjects (i.e. grade 13 graduates) as determined by college tests, may be directly admitted into the second semester. Such students must satisfy the English Communications and General Studies requirements of the college to graduate.

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.

Semester 6 (25 hours/week)	Credits
340-164 Industrial Organic Chem. <i>Pre-Req:</i> 340-061 Organic Chemistry 2 Lab, 340-155 Organic Chemistry 2 Lecture	4
340-071 Industrial Organic Chem. Lab <i>Pre-Req:</i> 340-155 Organic Chemistry 2 Lecture	4
340-165 Polymers & Composites <i>Pre-Req:</i> 340-155 Organic Chemistry 2 Lecture, 340-150 Physical Chemistry	4
340-144 Technical Report	1
340-073 Biochemistry Lab <i>Pre-Req:</i> 340-061 Organic Chemistry 2 Lab, 340-155 Organic Chemistry 2 Lecture,	4
340-068 Industrial Microbiology <i>Pre-Req:</i> 340-123 Introductory Microbiology	4
340-128 Microbial Ecology <i>Pre-Req:</i> 340-123 Introductory Microbiology	4

Engineering Option

Semester 5 (26 hours/week)	Credits
340-066 Analytical Chem. 2 <i>Pre-Req:</i> 340-058 Analytical Chemistry 1 Lecture	4
340-159 Analytical Chem. 2 Lab <i>Pre-Req:</i> 340-058 Analytical Chemistry 1 Lecture	5
340-160 Chem. Thermodyn. & Kinetics <i>Pre-Req:</i> 340-150 Physical Chemistry, 380-206 Calculus 1	4
340-161 Momentum & Heat Transfer <i>Pre-Req:</i> 340-150 Physical Chemistry	4
340-146 Instrumentation for Chemical Processes	4
340-162 Chem. Process Calculations <i>Pre-Req:</i> 340-150 Physical Chemistry	4

Semester 6 (25 hours/week)	Credits
340-164 Industrial Organic Chem. <i>Pre-Req:</i> 340-061 Organic Chemistry 2 Lab, 340-155 Organic Chemistry 2 Lecture	4
340-071 Industrial Organic Chem. Lab <i>Pre-Req:</i> 340-155 Organic Chemistry 2 Lecture	4
340-165 Polymers & Composites <i>Pre-Req:</i> 340-155 Organic Chemistry 2 Lecture, 340-150 Physical Chemistry	4
340-144 Technical Report	1
340-166 Chem. Separation Processes <i>Pre-Req:</i> 340-150 Physical Chemistry	4
340-147 Princ. of Process Control <i>Pre-Req:</i> 340-150 Physical Chemistry	4
340-167 Chem. Eng. Proc. Evaluation <i>Pre-Req:</i> 340-150 Physical Chemistry	4

Civil Engineering Technician (Co-op Program)

North Campus

Four academic semesters and one 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 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.

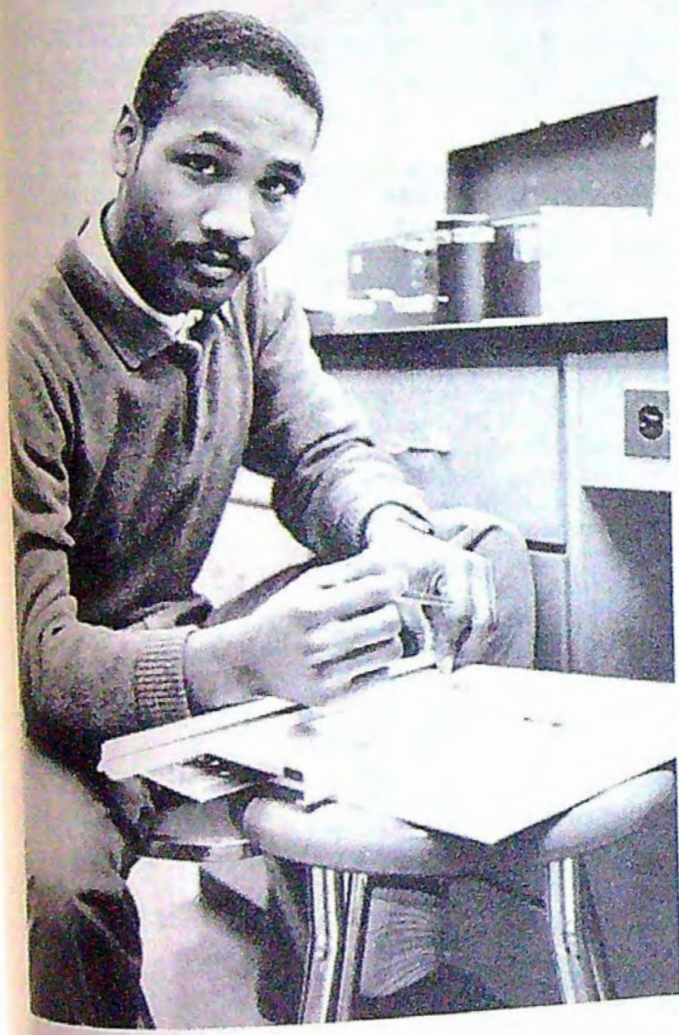
Graduates of this program may be eligible to enter the Civil Engineering Technologist (Co-op) Program.

Curriculum

Semester 1	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	Credits
330-521 Structural Drafting	4
330-522 Surveying 2	5
380-209 Computer Programming 1 <i>Pre-Req:</i> 330-230 Mathematics 1	3
330-576 Statics <i>Pre-Req:</i> 330-520 Intro. to Mechanics	4
380-205 Mathematics 2 <i>Pre-Req:</i> 330-230 Mathematics 1	3
Communications 2	4
General Studies	3
4 Month Co-op Work Term	

Semester 3		Credits
38-523	Civil Drafting 1	4
38-4081	Highway Technology	6
38-525	Materials Testing 2	3
38-526	Intro. to Fluid Mechanics	3
38-527	Basic Strength of Materials	5
	General Studies	3

Semester 4		Credits
38-524	Civil Drafting 2/CADD	5
38-528	Intro. to Municipal Services	4
38-525	Soil Mechanics	5
38-530	Computer Applications	3
Req. 380-209	Computer Programming 1	
38-537	Specifications & Estimating	4
38-532	Methods of Construction	3



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 or equivalent
- grade 12 English, grade 12 technical or academic mathematics
- minimum of 2 credits in any combination of senior level science and program related senior level technical courses (drafting and physics at the senior level 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.

Civil Engineering Technologist (Co-op)

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

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics
- minimum of 2 credits in any combination of senior level science and program related senior level technical courses (drafting and physics at the senior level are strongly recommended)
- in order to continue into the third year of this program, students must meet the requirements for the Civil Engineering Technician Diploma with a minimum grade point average of 70%

Interests and Skills

- strong technical interest in how buildings are constructed
- serious interest in producing detailed drawings
- an aptitude for mathematics
- good communications skills

Curriculum

For first four semesters, see page 169

8 Month Co-op Work Term

Semester 5	Credits
330-417 Highway Design	4
330-536 Stress and Structural Analysis	8
330-533 Foundations	6
330-534 Fluid Mechanics	3
330-535 Municipal Services	4

4 Month Co-op Work Term

Semester 6	Credits
330-537 Structural Design & Drafting/CADD	8
330-538 Site Management	4
330-059 Transportation Planning	4
330-053 Sanitary Technology	4
330-372 Air Photo Interpretation	3
330-389 Technical Project	2

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.

Civil Engineering Technologist Construction Administration (Co-op)

Curriculum

First four semesters, see page 169

Third Co-op Work Term

Semester 5	Credits
CE17 Highway Design	4
CE33 Foundations	6
CE34 Fluid Mechanics	3
CE35 Municipal Services	4
CE39 Quantity Surveying & Estimating	4
CE70 Construction Admin. (Contracting)	4

Fourth Co-op Work Term

Semester 6	Credits
CE85 Development & Planning	3
CE88 Sanitary Technology	4
CE89 Technical Project	2
CE90 Life Cycle Costing	3
CE94 Business Management	3
CE92 Quantity Surveying & Estimating (Comparative)	4
CE93 Construction Admin. (Professional)	4

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.

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

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics
- minimum of 2 credits in any combination of senior level science and program related senior level technical courses (drafting and physics at the senior level are strongly recommended)
- in order to continue into the third year of this program, students must meet the requirements for the Civil Engineering Technician Diploma with a minimum grade point average of 70%

Interests and Skills

- strong technical interest in how buildings are constructed
- serious interest in producing detailed drawings
- an aptitude for mathematics
- good communications skills

Computer Engineering Technologist

Curriculum

Semester 1 (26 hours/week)	Credits
380-224 Mathematics 1	4
350-206 Introduction to Pascal	4
380-203 Physics (Heat, Light & Sound)	3
350-083 Electrical Circuits & Applications 1	4
350-092 Logic 1	4
350-205 Computers in Business	3
350-206 Introduction to Pascal	4
Semester 2 (27 hours/week)	Credits
380-029 Mathematics 2	4
<i>Pre-Req:</i> 380-224 Mathematics 1	
380-191 Physics (Mechanics & Waves)	3
350-102 Electrical Circuits & Applications 2	4
<i>Pre-Req:</i> 380-224 Mathematics 1, 350-083 Electrical Circuits & Applications 1	
350-093 Logic 2	4
<i>Pre-Req:</i> 350-092 Logic 1	
350-234 Problem Solving with Pascal	4
<i>Pre-Req:</i> 350-206 Introduction to Pascal	
350-107 Circuits & Measurement	4
<i>Pre-Req:</i> 380-224 Mathematics 1, 350-083 Electrical Circuits & Applications 1	
Semester 3 (25 hours/week)	Credits
250-208 Computer Architecture 1	4
<i>Pre-Req:</i> 350-093 Logic 2	
350-209 Numerical Methods 1	4
<i>Pre-Req:</i> 380-029 Mathematics 2	
350-234 Problem Solving with Pascal	
350-210 Programming Languages	6
350-211 Data Communications Systems 1	4
<i>Pre-Req:</i> 350-093 Logic 2, 350-102 Electrical Circuits & Applications 2	
350-212 Algorithms & Data Structures 1	4
<i>Pre-Req:</i> 350-234 Problem Solving with Pascal	
General Studies	3
Semester 4 (27 hours/week)	Credits
350-233 Computer Architecture 2	4
<i>Pre-Req:</i> 350-208 Computer Architecture 1	
350-215 Numerical Methods 2	4
<i>Pre-Req:</i> 350-209 Numerical Methods 1	
350-216 Systems Analysis	4
350-217 Software Project 1	4
<i>Pre-Req:</i> 350-212 Algorithms & Data Structures 1	

North Campus

Six semesters starting September

The graduate of this program will have a strong software orientation supplemented with 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 different communications protocols used in distributed computer systems.

You may be required to purchase appropriate electronic component kits and materials as recommended at the College.

350-218 Algorithms & Data Structures 2	4
<i>Pre-Req:</i> 350-212 Algorithms & Data Structures 1	
350-214 Assembler Programming	4
<i>Pre-Req:</i> 350-208 Computer Architecture 1	
General Studies	3

Semester 5 (24 hours/week)	Credits
350-219 Operating Systems 1	4
<i>Pre-Req:</i> 350-214 Assembler Programming, 350-233 Computer Architecture 2	
350-220 Real Time Systems	4
<i>Pre-Req:</i> 350-214 Assembler Programming, 350-233 Computer Architecture 2	
350-221 Micro Processor Development Systems	4
<i>Pre-Req:</i> 350-233 Computer Architecture 2, 350-214 Assembler Programming	
350-222 Data Communications Systems 2	4
<i>Pre-Req:</i> 350-211 Data Communications Systems 1	
350-223 Peripherals	4
<i>Pre-Req:</i> 350-233 Computer Architecture 2	

Note: The Computer Engineering Technologist is also planned for implementation as a Co-op program starting September 1987.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics
- minimum 2 credits in any combination of senior level science and program related senior level technical courses. Computer science and physics courses are strongly recommended.

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.

350-235 Software Project 2 <i>Pre-Req:</i> 350-216 Systems Analysis, 350-217 Software Project 1	4
Semester 6 (23 hours/week)	
350-225 Operating Systems 2 <i>Pre-Req:</i> 350-219 Operating Systems 1	4
350-226 Computer Applications <i>Pre-Req:</i> 350-221 Micro Processor Development Systems, 350-223 Peripherals, 350-220 Real Time Systems	4
	Credits

350-227 Software Management	4
350-228 Graphics Systems	4
<i>Pre-Req:</i> 350-221 Micro Processor Development Systems, 350-210 Programming Languages	
350-236 Software Project 3 <i>Pre-Req:</i> 350-220 Real Time Systems, 350-219 Operating Systems 1, 350-221 Micro Processor Development Systems	4
General Studies	3

Electromechanical Engineering Technician

Curriculum

Semester 1 (23 hours/week)	
380-046 Mathematics 1	4
941-102 Communications 1 <i>Pre-Req:</i> Language Skills or equivalent.	4
320-132 Mechanics	4
320-098 Manufacturing Processes 1	4
320-046 Mechanical Technical Drawing	4
320-266 Machining Processes	3
Semester 2 (26 hours/week)	
380-002 Mathematics 2 <i>Pre-Req:</i> 380-046 Mathematics 1	4
941-103 Communications 2 <i>Pre-Req:</i> 941-102 Communications 1	4
320-001 Statics <i>Pre-Req:</i> 320-132 Mechanics	4
320-073 Fluid Mechanics	4
380-178 Computer Programming	4
General Studies (2)	6
Semester 3 (26 hours/week)	
320-285 Kinematics of Machines <i>Pre-Req:</i> 320-132 Mechanics, 320-001 Statics	3
320-147 Mechanical Power Transmission <i>Pre-Req:</i> 320-132 Mechanics	4
320-052 Basic Strength of Materials <i>Pre-Req:</i> 320-001 Statics	4
320-063 Industrial Hydraulics <i>Pre-Req:</i> 320-073 Fluid Mechanics	4
320-076 Manufacturing Processes 2 <i>Pre-Req:</i> 320-098 Manufacturing Processes 1	4
350-092 Logic 1	4

North Campus

Four semesters beginning September and January each year.

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 equipment, advise on its maintenance, provide solutions to technical problems related to control systems in general.

Students may be required to place refundable deposits on such items as lab manuals or other items supplied by the College.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics
- a minimum of two credits in any combination of senior level science and program-related technical courses (electricity, physics and/or machine shop at a senior level are 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.

350-190 Electrical Controls 1	3
Semester 4 (27 hours/week)	Credits
320-270 Microcomputer Controls 1 <i>Pre-Req: 350-092 Logic 1</i>	
320-234 Stress Analysis <i>Pre-Req: 320-052 Basic Strength of Materials</i>	4
320-287 CAD 1 <i>Pre-Req: 320-046 Mechanical Technical Drawing</i>	3
320-145 Industrial Pneumatics <i>Pre-Req: 350-190 Electrical Controls 1</i>	4

320-209 Fluid Power Circuits and Controls 1 <i>Pre-Req: 320-063 Industrial Hydraulics</i>	
320-015 Numerical Control 1 <i>Pre-Req: 320-266 Machining Processes, 320-098 Manufacturing Processes 1</i>	4
320-265 Material Sciences <i>Pre-Req: 320-098 Manufacturing Processes 1</i>	3
General Studies	3

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, micro-computers, 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.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics
- a minimum of 2 credits in any combination of senior level science and program-related senior level technical courses

(electricity, physics and/or machine shop at the senior level are strongly recommended)

Note: in order to continue into third year of the Electromechanical Engineering Technology program, students must meet the requirements for the Electromechanical Technician diploma with a minimum grade point average of 75% (70% with permission).

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 174

Semester 5 (27 hours/week)	Credits
350-191 Electrical Controls 2 <i>Pre-Req: 350-190 Electrical Controls 1</i>	3
320-210 Fluid Power Circuits and Controls 2 <i>Pre-Req: 320-145 Industrial Pneumatics</i>	4
320-148 Machine Design 1 (Project)	4
320-293 Numerical Control 2 <i>Pre-Req: 320-015 Numerical Control 1</i>	5
320-267 Metrology <i>Pre-Req: 380-046 Mathematics 1</i>	3
340-146 Instrumentation for Chemical Processes	4
320-298 Electromechanical Controls 1 <i>Pre-Req: 320-145 Industrial Pneumatics</i>	4
Semester 6 (25 hours/week)	Credits
380-171 Calculus 1 <i>Pre-Req: 380-002 Mathematics 2</i>	4
320-300 Machine Design 2 <i>Pre-Req: 320-148 Machine Design 1 (Project)</i>	4
320-308 Robotics & Automation Systems	4
320-272 Thermodynamics	3
320-299 Electromechanical Controls 2 <i>Pre-Req: 320-298 Electromechanical Controls 1</i>	3
320-290 CAD 2 <i>Pre-Req: 320-287 CAD 1</i>	3

Electronics Engineering Technician

Curriculum

Semester 1 (26 hours/week)	Credits
380-224 Mathematics 1	4
380-203 Physics (Heat, Light & Sound)	3
350-083 Electrical Circuits & Applications 1	4
350-092 Logic 1	4
350-094 Elect. Production Technology 1	4
380-225 BASIC Programming	3
Communications 1	4
Semester 2 (26 hours/week)	Credits
380-029 Mathematics 2	4
<i>Pre-Req:</i> 380-224 Mathematics 1	
380-191 Physics (Mechanics & Waves)	3
350-102 Electrical Circuits & Applications 2	4
<i>Pre-Req:</i> 380-224 Mathematics 1, 350-083 Electrical Circuits & Applications 1	
350-093 Logic 2	4
<i>Pre-Req:</i> 350-092 Logic 1	
350-107 Circuits & Measurement	4
<i>Pre-Req:</i> 380-224 Mathematics 1, 350-083 Electrical Circuits & Applications 1	
350-194 Elect. Production Technology 2	3
<i>Pre-Req:</i> 350-094 Elect. Production Technology 1	
Communications 2	4
Semester 3 (24 hours/week)	Credits
350-185 Electro-Mechanical Techniques	3
<i>Pre-Req:</i> 380-191 Physics (Mechanics & Waves)	
350-103 Electrical Circuits & Applications 3	4
<i>Pre-Req:</i> 350-102 Electrical Circuits & Applications 2, 380-029 Mathematics 2	
350-051 H.F. Circuits	4
<i>Pre-Req:</i> 350-102 Electrical Circuits & Applications 2, 380-029 Mathematics 2, 350-107 Circuits & Measurement	
350-179 Microcomputer Systems 1	4
<i>Pre-Req:</i> 350-093 Logic 2	
350-184 Motors & Controls	3
<i>Pre-Req:</i> 350-107 Circuits & Measurement	
General Studies (2)	6
Semester 4 (27 hours/week)	Credits
380-228 Introductory Calculus	4
<i>Pre-Req:</i> 380-029 Mathematics 2	
350-104 Electrical Circuits & Applications 4	4
<i>Pre-Req:</i> 350-103 Electrical Circuits & Applications 3	
350-180 Microcomputer Systems 2	4
<i>Pre-Req:</i> 350-179 Microcomputer Systems 1	
350-016 Troubleshooting	4
<i>Pre-Req:</i> 350-103 Electrical Circuits & Applications 3, 350-179 Microcomputer Systems 1	

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.

Note: The Electronics Engineering Technician program is also planned for implementation as a Co-op program starting September 1987.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics and a minimum of 2 credits in any combination of senior level science and program related senior level technical courses (electronics and physics at the senior level are strongly recommended)

350-183 Telecommunication Systems	4
<i>Pre-Req:</i> 350-051 H.F. Circuits	
350-175 Principles of TV	4
<i>Pre-Req:</i> 350-102 Electrical Circuits & Applications 2	
General Studies	3

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.

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.

Note: The Electronics Engineering Technologist program is also planned for implementation as a Co-op program starting September 1987.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics and a minimum of 2 credits in any combination of senior level science and program related senior level technical courses (electronics and physics at the senior level are strongly recommended)

Note: in order to continue into third year of the Electronics Engineering Technology program students must meet the requirements for the Electronics Engineering Technician diploma with a minimum grade point average of 70%

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 page 176

Semester 5 (24 hours/week)		Credits
380-229 Applied Calculus	<i>Pre-Req:</i> 380-228 Introductory Calculus	4
350-105 Electrical Circuits & Applications 5	<i>Pre-Req:</i> 350-103 Electrical Circuits & Applications 3	4
350-150 Opto-Electronics	<i>Pre-Req:</i> 380-203 Physics (Heat, Light & Sound), 380-228 Introductory Calculus	4
350-151 Video Systems	<i>Pre-Req:</i> 350-175 Principles of TV, 350-183 Telecommunication Systems	4
350-181 Microcomputer Systems 3	<i>Pre-Req:</i> 350-180 Microcomputer Systems 2	4
350-232 Techniques of Design	<i>Pre-Req:</i> 350-104 Electrical Circuits & Applications 4, 350-093 Logic 2	4
Semester 6 (25 hours/week)		Credits
380-195 Applied Statistics	<i>Pre-Req:</i> 380-029 Mathematics 2	3
350-106 Electrical Circuits & Applications 6	<i>Pre-Req:</i> 350-051 H.F. Circuits	4
350-149 Control Systems	<i>Pre-Req:</i> 350-181 Microcomputer Systems 3, 380-229 Applied Calculus 350-184 Motors & Controls	4
350-231 Data Communications	<i>Pre-Req:</i> 350-183 Telecommunication Systems	4
350-148 Applied Electromagnetics	<i>Pre-Req:</i> 350-183 Telecommunication Systems, 380-191 Physics (Mechanics & Waves)	4
350-153 Technical Project	<i>Pre-Req:</i> 350-232 Techniques of Design	2
350-186 Microwave Techniques	<i>Pre-Req:</i> 380-229 Applied Calculus, 350-183 Telecommunication Systems	4

Environmental Systems Engineering Technologist-Energy Management

Curriculum

For first four semesters, see page 162

Semester 5 (24 hours/week)		Credits
329	Introduction to VAV Pr-Req: 320-253 Design Loads 2	3
439	Instrumentation 1 Pr-Req: 330-432 Electricity 2	3
449	Energy Management Technology 1	6
440	Eng. & Economic Analysis	3
441	Hydronic & Steam Systems 2 Pr-Req: 330-433 Hydronics & Steam Syst. 1	3
438	Heat Transfer Pr-Req: 320-317 Thermodynamics	3
323	Engineered Piping Design Pr-Req: 320-284 Engineering Drawing	3
Semester 6 (25 hours/week)		Credits
509	Energy Management Technology 2 Pr-Req: 330-449 Energy Management Technology 1	5
443	Instrumentation 2 Pr-Req: 330-439 Instrumentation 1	3
452	Process Systems	3
326	Mechanical Estimating Pr-Req: 320-323 Engineered Piping Design	6
327	Lighting Systems	3
306	Energy Conservation	3
510	Energy Management Project & Report Pr-Req: 330-449 Energy Management Technology 1	2

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 building 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

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 academic or technical mathematics, senior level physics and chemistry, or any combination of senior level science and technical subjects

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 (e.g. governments, school boards, hospitals, banks, chain stores and property management companies).

Environmental Systems Engineering Technologist-Solar Energy

Curriculum

For first four semesters, see page 162

Semester 5 (25 hours/week)		Credits
322	Computer Simulation Pr-Req: 380-239 Computer Applications	3
439	Instrumentation 1 Pr-Req: 330-432 Electricity 2	3
440	Eng. & Economic Analysis	3
441	Hydronic & Steam Systems 2 Pr-Req: 330-433 Hydronics & Steam Syst. 1	3

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 field trips will give you the experience needed to enter this important new industry.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics and a minimum of 2 credits in any combination of senior level science and program-related senior level technical courses (a technical subject and physics at the senior level are strongly recommended)

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.

320-323	Engineered Piping Design	3
<i>Pre-Req:</i> 320-284 Engineering Drawing		
330-437	Solar Energy 1	6
330-438	Heat Transfer	3
<i>Pre-Req:</i> 320-317 Thermodynamics		
320-324	Technical Project 1	1
Semester 6 (25 hours/week)		Credits
320-325	Solar Energy 2	2
<i>Pre-Req:</i> 330-437 Solar Energy 1		
330-443	Instrumentation 2	3
<i>Pre-Req:</i> 330-439 Instrumentation 1		
320-326	Mechanical Estimating	6
<i>Pre-Req:</i> 320-323 Engineered Piping Design		
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, ship-board employment may be available through the Cana-

Curriculum

For first four semesters, see page 188

Semester 5 (26 hours/week)		Credits
330-168	Hydrographic Survey 2	4
330-159	Navigation, Charts and Pilotage	4
330-098	Geodesy	6
<i>Pre-Req:</i> 330-488 Control & Elect. Survey		
330-494	Automated Survey Applications	4
330-458	Survey Camp 2	4
330-231	Statistics & Matrix Algebra	4
<i>Pre-Req:</i> 330-230 Mathematics 1		
Semester 6 (22 hours/week)		Credits
330-169	Marine Law	3
330-496	Computer Applications Lab 2	2
<i>Pre-Req:</i> 380-210 Computer Programming 2		
330-065	Adjustment of Observations	4
<i>Pre-Req:</i> Statistics and Matrix Algebra Calculus 2		
330-497	Cartography	4
330-500	Oceanography and Meteorology	3

330-168 Electronic Positioning Syst.	4
330-168 Hydrographic Survey 2	
330-168 Tidal & Current Studies	2

dian Hydrographic Service as a practical extension of your college training program.

NOTE: The Hydrographic Survey Technologist will receive a Survey Technician Diploma upon completion of the fourth semester.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English, and technical or academic mathematics
- minimum of 2 credits in any combination of senior level science and program related senior level technical courses (physics at the senior level is strongly recommended)

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 aquatic sciences for hydrographic surveyors. Career alternatives in this field include party chief, surveyor (instrument person), field data processor draftsman and in programming. In most of these jobs you may have to travel to remote locations.

Industrial (Management) Engineering Technologist

Syllabus	
Semester 1 (26 hours/week)	Credits
380-046 Mathematics 1	4
380-132 Mechanics	4
380-182 Statistics	3
380-098 Manufacturing Processes 1	4
380-346 Mechanical Technical Drawing	4
380-356 Machining Processes	3
Communications 1	4
Semester 2 (27 hours/week)	Credits
380-002 Mathematics 2	4
Req: 380-046 Mathematics 1	
380-181 Statics	4
Req: 380-132 Mechanics	
380-355 Time Study 1	4
Req: 380-182 Statistics	
380-332 Computer Programming	3
Req: 380-046 Mathematics 1	
380-337 Basic Tool & Fixture Design	4
Req: 380-046 Mechanical Technical Drawing, 380-098 Manufacturing Processes 1	
Communications 2	4
General Studies	3

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

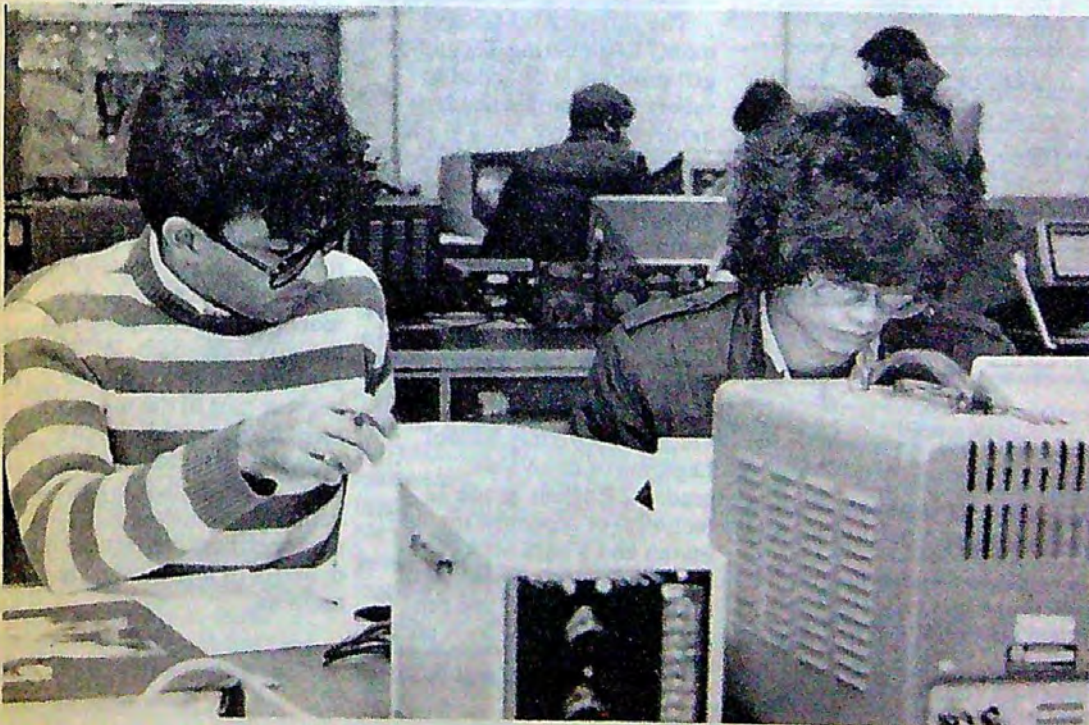
- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics and a minimum of 2 credits in any combination of senior level science and program related senior level technical courses

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.

Semester 3 (21 hours/week)	Credits
350-190 Electrical Controls 1	3
320-052 Basic Strength of Materials <i>Pre-Req:</i> 320-001 Statics	4
320-076 Manufacturing Processes 2 <i>Pre-Req:</i> 320-098 Manufacturing Processes 1	4
320-302 Time Study 2 <i>Pre-Req:</i> 320-295 Time Study 1	4
320-267 Metrology <i>Pre-Req:</i> 380-046 Mathematics 1	3
General Studies	3
Semester 4 (26 hours/week)	Credits
320-315 Industrial Organization & Management	3
320-265 Material Sciences <i>Pre-Req:</i> 320-098 Manufacturing Processes 1	3
321-010 Elements of Accounting	4
320-234 Stress Analysis <i>Pre-Req:</i> 320-052 Basic Strength of Materials	4
320-273 Motion Study <i>Pre-Req:</i> 320-295 Time Study 1	3
320-296 Quality Control <i>Pre-Req:</i> 380-182 Statistics	3
320-268 Manufacturing Cost Estimating <i>Pre-Req:</i> 320-076 Manufacturing Processes 2, 320-046 Mechanical Technical Drawing	3
General Studies	3

Semester 5 (27 hours/week)	Credits
320-303 Methods Analysis <i>Pre-Req:</i> 320-273 Motion Study	4
320-070 Wage & Salary Administration	4
320-013 Industrial Psychology	4
320-090 Operations Research <i>Pre-Req:</i> 380-182 Statistics	4
320-092 Production & Inventory Control <i>Pre-Req:</i> 320-098 Manufacturing Processes 1	4
380-293 Computer Applications <i>Pre-Req:</i> 380-232 Computer Programming	3
320-013 Industrial Psychology	4
Semester 6 (23 hours/week)	Credits
320-226 Plant Layout & Materials Handling <i>Pre-Req:</i> 320-303 Methods Analysis	8
320-304 Computer Integrated Manufacturing <i>Pre-Req:</i> 320-092 Production & Inventory Control, 320-098 Manufacturing Processes 1, 320-287 CAD 1	3
320-071 Industrial Economics	4
253-111 Labour Relations <i>Pre-Req:</i> 251-020 Personnel	4
320-091 Project Management	4



Manufacturing Engineering Technician

Curriculum

Semester 1 (26 hours/week)		Credits
380-046	Mathematics 1	4
320-132	Mechanics	4
320-098	Manufacturing Processes 1	4
320-046	Mechanical Technical Drawing	4
320-266	Machining Processes	3
320-267	Metrology	3
Pre-Req: 380-046	Mathematics 1	
	Communications 1	4
Semester 2 (27 hours/week)		Credits
380-002	Mathematics 2	4
Pre-Req: 380-046	Mathematics 1	
320-001	Statics	4
Pre-Req: 320-132	Mechanics	
320-237	Basic Tool & Fixture Design	4
Pre-Req: 320-046	Mechanical Technical Drawing, 320-098	
	Manufacturing Processes 1	
320-295	Time Study 1	4
Pre-Req: 380-182	Statistics	
320-232	Computer Programming	3
Pre-Req: 380-046	Mathematics 1	
	Communications 2	4
	General Studies	3
Semester 3 (27 hours/week)		Credits
380-175	Mathematics (Dynamics)	4
Pre-Req: 380-046	Mathematics 1	
320-052	Basic Strength of Materials	4
Pre-Req: 320-001	Statics	
320-063	Industrial Hydraulics	4
Pre-Req: 320-073	Fluid Mechanics	
320-076	Manufacturing Processes 2	4
Pre-Req: 320-098	Manufacturing Processes 1	
320-291	Die Design 1	5
Pre-Req: 320-218	Tool & Fixture Design,	
320-098	Manufacturing Processes 1	
320-287	CAD 1	3
Pre-Req: 320-046	Mechanical Technical Drawing	
320-190	Electrical Controls 1	3
Semester 4 (24 hours/week)		Credits
320-15	Numerical Control 1	4
Pre-Req: 320-266	Machining Processes,	
320-098	Manufacturing Processes 1	
320-268	Manufacturing Cost Estimating	3
Pre-Req: 320-076	Manufacturing Processes 2,	
320-046	Mechanical Technical Drawing	

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, press-work 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.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics

320-305	Manufacturing Process Planning 1	5
Pre-Req: 320-076	Manufacturing Processes 2	
320-145	Industrial Pneumatics	4
Pre-Req: 350-190	Electrical Controls 1	
320-273	Motion Study	3
Pre-Req: 320-295	Time Study 1	
	General Studies	3

- a minimum of 2 credits in any combination of senior level science and program-related senior level technical courses (electricity, physics and/or machine shop at the senior level are 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.

Descriptions for Communications and General Studies courses can be found in the Human Studies section, beginning on page 154.

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

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics and a minimum of 2 credits in any combination of senior level science and program-related senior level technical courses (electricity, physics or machine shop at the senior level are strongly recommended)

Note: in order to continue into third year of the Manufacturing Engineering Technology program, students must meet the requirements for the Manufacturing Engineering Technician diploma with a minimum grade point average of 70%

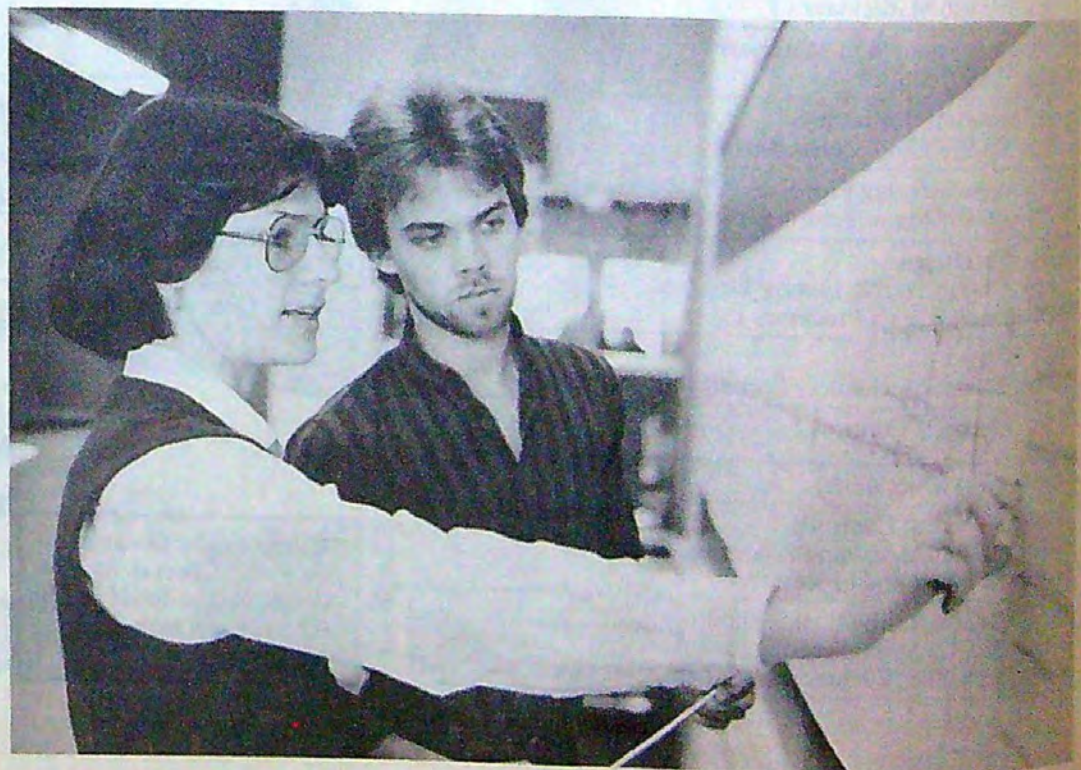
Job Opportunities

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 182

Semester 5 (23 hours/week)		Credits
380-182	Statistics	3
320-293	Numerical Control 2	5
<i>Pre-Req:</i> 320-015 Numerical Control 1		
320-224	Plant Layout	4
<i>Pre-Req:</i> 320-046 Mechanical Technical Drawing		
350-191	Electrical Controls 2	3
<i>Pre-Req:</i> 350-190 Electrical Controls 1		
320-092	Production & Inventory Control	4
<i>Pre-Req:</i> 320-098 Manufacturing Processes 1		
320-244	Manufacturing Process Planning 2	4
<i>Pre-Req:</i> 320-305 Manufacturing Process Planning 1		
Semester 6 (23 hours/week)		Credits
380-171	Calculus 1	4
<i>Pre-Req:</i> 380-002 Mathematics 2		
320-265	Material Sciences	3
<i>Pre-Req:</i> 320-098 Manufacturing Processes 1		
320-296	Quality Control	3
<i>Pre-Req:</i> 380-182 Statistics		
320-297	Technical Project (Field)	6
320-091	Project Management	4
320-304	Computer Integrated Manufacturing	3
<i>Pre-Req:</i> 320-092 Production & Inventory Control, 320-098 Manufacturing Processes 1, 320-287 CAD 1		



Mechanical Engineering Drafting Design Technician

Curriculum

Semester 1 (24 hours/week)		Credits
380-046	Mathematics 1	4
941-102	Communications 1	4
Pre-Req: Language Skills or equivalent		
320-132	Mechanics	4
320-240	Fundamentals of Manufacturing Processes	4
320-046	Mechanical Technical Drawing	4
380-232	Computer Programming	3
Pre-Req: 380-046 Mathematics 1		
Semester 2 (26 hours/week)		Credits
380-002	Mathematics 2	4
Pre-Req: 380-046 Mathematics 1		
941-103	Communications 2	4
Pre-Req: 941-102 Communications 1		
320-001	Statics	4
Pre-Req: 320-132 Mechanics		
320-162	Mechanical Design & Drafting 1	8
Pre-Req: 320-046 Mechanical Technical Drawing		
General Studies (2)		6
Semester 3 (24 hours/week)		Credits
320-285	Kinematics of Machines	3
Pre-Req: 320-132 Mechanics, 320-001 Statics		
320-052	Basic Strength of Materials	4
Pre-Req: 320-001 Statics		
320-147	Mechanical Power Transmission	4
Pre-Req: 320-132 Mechanics		
320-286	Mechanical Design & Drafting 2	7
Pre-Req: 320-046 Mechanical Technical Drawing		
350-190	Electrical Controls 1	3
320-287	CAD 1	3
Pre-Req: 320-046 Mechanical Technical Drawing		
Semester 4 (26 hours/week)		Credits
320-073	Fluid Mechanics	4
320-288	Mechanical Design & Drafting 3	6
Pre-Req: 320-046 Mechanical Technical Drawing		
320-015	Numerical Control 1	4
Pre-Req: 320-266 Machining Processes, 320-098 Manufacturing Processes 1		
320-234	Stress Analysis	4
Pre-Req: 320-052 Basic Strength of Materials		
320-265	Material Sciences	3
Pre-Req: 320-098 Manufacturing Processes 1		
320-290	CAD 2	3
Pre-Req: 320-287 CAD 1		
General Studies		3

North Campus

Four semesters beginning September and January each year.

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 or equivalent
- grade 12 English, grade 12 technical or academic mathematics and a minimum of 2 credits in any combination of senior level science and related senior level technical courses (physics at the senior 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.



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 and manufacturing process planning.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics
- a minimum of 2 credits in any combination of senior level science and program related senior level technical courses (drafting, physics and machine shop at the senior level are strongly recommended)

Curriculum

Semester 1 (23 hours/week)	Credits
320-132 Mechanics	4
320-098 Manufacturing Processes 1	4
320-046 Mechanical Technical Drawing	4
320-266 Machining Processes	3
380-046 Mathematics 1	4
Communications 1	4

Job Opportunities

As a tool and die technician there are numerous areas of employment in manufacturing 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.

Semester 2 (27 hours/week)	Credits
320-001 Statics <i>Pre-Req:</i> 320-132 Mechanics	4
320-218 Tool & Fixture Design <i>Pre-Req:</i> 320-046 Mechanical Technical Drawing	8
380-002 Mathematics 2 <i>Pre-Req:</i> 380-046 Mathematics 1	4
380-232 Computer Programming <i>Pre-Req:</i> 380-046 Mathematics 1	3
Communications 2	4
General Studies	3
Semester 3 (26 hours/week)	Credits
380-175 Mathematics (Dynamics) <i>Pre-Req:</i> 380-046 Mathematics 1	4
320-052 Basic Strength of Materials <i>Pre-Req:</i> 320-001 Statics	4
320-076 Manufacturing Processes 2 <i>Pre-Req:</i> 320-098 Manufacturing Processes 1	4
320-291 Die Design 1 <i>Pre-Req:</i> 320-218 Tool & Fixture Design, 320-098 Manufacturing Processes 1	5
320-267 Metrology <i>Pre-Req:</i> 380-046 Mathematics 1	3
320-287 CAD 1 <i>Pre-Req:</i> 320-046 Mechanical Technical Drawing	3
350-190 Electrical Controls 1	3
Semester 4 (24 hours/week)	Credits
320-292 Die Design 2 <i>Pre-Req:</i> 320-291 Die Design 1	6
320-268 Manufacturing Cost Estimating <i>Pre-Req:</i> 320-076 Manufacturing Processes 2, 320-046 Mechanical Technical Drawing	3
320-015 Numerical Control 1 <i>Pre-Req:</i> 320-266 Machining Processes, 320-098 Manufacturing Processes 1	4
320-265 Material Sciences <i>Pre-Req:</i> 320-098 Manufacturing Processes 1	3
320-290 CAD 2 <i>Pre-Req:</i> 320-287 CAD 1	3
General Studies (2)	6

Mechanical Numerical Control Engineering Technician

Curriculum

Semester 1 (23 hours/week)		Credits
380-046	Mathematics 1	4
320-132	Mechanics	4
320-098	Manufacturing Processes 1	4
320-046	Mechanical Technical Drawing	4
320-266	Machining Processes	3
	Communications 1	4
Semester 2 (27 hours/week)		Credits
380-002	Mathematics 2	4
<i>Pre-Req:</i> 380-046 Mathematics 1		
320-001	Statics	4
<i>Pre-Req:</i> 320-132 Mechanics		
320-015	Numerical Control 1	4
<i>Pre-Req:</i> 320-266 Machining Processes, 320-098 Manufacturing Processes 1		
320-237	Basic Tool & Fixture Design	4
<i>Pre-Req:</i> 320-046 Mechanical Technical Drawing, 320-098 Manufacturing Processes 1		
380-232	Computer Programming	3
<i>Pre-Req:</i> 380-046 Mathematics 1		
	Communications 2	4
	General Studies	3
Semester 3 (25 hours/week)		Credits
380-175	Mathematics (Dynamics)	4
<i>Pre-Req:</i> 380-046 Mathematics 1		
320-293	Numerical Control 2	5
<i>Pre-Req:</i> 320-015 Numerical Control 1		
320-076	Manufacturing Processes 2	4
<i>Pre-Req:</i> 320-098 Manufacturing Processes 1		
320-267	Metrology	3
<i>Pre-Req:</i> 380-046 Mathematics 1		
320-287	CAD 1	3
<i>Pre-Req:</i> 320-046 Mechanical Technical Drawing		
350-190	Electrical Controls 1	3
	General Studies	3
Semester 4 (25 hours/week)		Credits
320-306	Numerical Control 3	6
<i>Pre-Req:</i> 320-293 Numerical Control 2		
320-268	Manufacturing Cost Estimating	3
<i>Pre-Req:</i> 320-076 Manufacturing Processes 2, 320-046 Mechanical Technical Drawing		

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 assisted 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.

Admission Requirements

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics
- a minimum of 2 credits in any combination of senior level science and program related senior level technical courses (electricity, physics and/or machine shop at the senior level are strongly recommended)

320-265	Material Sciences	3
<i>Pre-Req:</i> 320-098 Manufacturing Processes 1		
320-305	Manufacturing Process Planning 1	5
<i>Pre-Req:</i> 320-076 Manufacturing Processes 2		
320-307	CAM 1	5
<i>Pre-Req:</i> 320-287 CAD 1		
	General Studies	3

Job Opportunities

Technologically-modern companies are looking for qualified CNC operators and programmers. These industries include aircraft and aerospace, automotive, agricultural machinery, plastics, and 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.

Safety Engineering Technologist

Curriculum

Semester 1 (27 hours/week)	Credits
380-046 Mathematics 1	4
320-132 Mechanics	4
320-098 Manufacturing Processes 1	4
320-046 Mechanical Technical Drawing	4
320-037 Total Loss Control	4
380-182 Statistics	3
Communications 1	4
Semester 2 (25 hours/week)	Credits
380-002 Mathematics 2 <i>Pre-Req:</i> 380-046 Mathematics 1	4
320-001 Statics <i>Pre-Req:</i> 320-132 Mechanics	4
380-232 Computer Programming <i>Pre-Req:</i> 380-046 Mathematics 1	3
320-095 Fire Protection	4
Communications 2	4
General Studies (2)	6
Semester 3 (26 hours/week)	Credits
320-221 Occupational Health (Chemical Agents)	4
350-190 Electrical Controls 1	3
320-052 Basic Strength of Materials <i>Pre-Req:</i> 320-001 Statics	4
320-076 Manufacturing Processes 2 <i>Pre-Req:</i> 320-098 Manufacturing Processes 1	4
320-224 Plant Layout <i>Pre-Req:</i> 320-046 Mechanical Technical Drawing	4
380-203 Physics (Heat, Light & Sound)	3
340-051 General Chemistry 1	4
Semester 4 (22 hours/week)	Credits
380-171 Calculus 1 <i>Pre-Req:</i> 380-002 Mathematics 2	4
320-276 Industrial Security	3
320-222 Occupational Health (Physical Agents)	4
320-315 Industrial Organization & Management	3
438-450 A.V. Techniques	4
320-234 Stress Analysis <i>Pre-Req:</i> 320-052 Basic Strength of Materials	4
Semester 5 (23 hours/week)	Credits
380-193 Computer Applications <i>Pre-Req:</i> 380-232 Computer Programming	3
320-090 Operations Research <i>Pre-Req:</i> 380-182 Statistics	4

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 or equivalent
- grade 12 English, grade 12 technical or academic mathematics and a minimum of 2 credits in any combination of senior level science and program related senior level technical courses

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 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.

320-171 Product & Public Safety	4
320-281 Environmental Health	4
320-013 Industrial Psychology	4
320-311 Safety Administration	3
General Studies	3
Semester 6 (23 hours/week)	Credits
320-091 Project Management	4
320-248 Occupational Health (Lifestyle)	4
221-010 Elements of Accounting	4
320-071 Industrial Economics	4

253-111 Labour Relations Pre-Req: 251-020 Personnel	4
320-274 Safety Program Development Pre-Req: 320-221 Occupational Health (Chemical Agents), 320-222 Occupational Health (Physical Agents), 320-311 Safety Administration, 320-037 Total Loss Control, 320- 095 Fire Protection	3

Survey Technician

Curriculum

Semester 1 (25 hours/week)	Credits
330-230 Mathematics 1	4
330-486 Survey Computations 1	2
330-038 Surveying 1	
330-425 Survey Drawing 1	2
330-012 Survey Camp 1 (Spring)	4
Communications 1	4
General Studies	3
Semester 2 (25 hours/week)	Credits
330-205 Mathematics 2 Pre-Req: 330-230 Mathematics 1	3
330-039 Survey 2 Pre-Req: 330-038 Surveying 1	6
330-487 Survey Computations 2 Pre-Req: 330-486 Survey Computations 1	3
330-426 Survey Drawing 2 Pre-Req: 330-425 Survey Drawing 1	2
330-157 Hydrographic Survey 1	4
330-209 Computer Programming 1 Pre-Req: 330-230 Mathematics 1	3
Communications 2	4
Semester 3 (27 hours/week)	Credits
330-206 Calculus 1 Pre-Req: Math 2	3
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

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 Technology 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 or equivalent
- grade 12 English, grade 12 technical or academic mathematics
- a minimum of 2 credits in any combination of senior level science and program related senior level technical courses (Physics at the senior level 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

330-491 Computer Applications 1 <i>Pre-Req:</i> 330-157 Hydrographic Survey 1	2
General Studies	3
Semester 4 (25 hours/week) Credits	
330-372 Air Photo Interpretation	3
380-207 Calculus 2 <i>Pre-Req:</i> 330-206 Calculus 1	3
330-493 Legal Survey Studies 1	5
330-492 Advanced Survey <i>Pre-Req:</i> 330-488 Control & Elect. Survey	6

outdoor and indoor conditions and include field positions such as chairman/woman, rodman/woman and instrumentman/woman. Office positions include draftsman 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.

380-210 Computer Programming 2 <i>Pre-Req:</i> 330-157 Hydrographic Survey 1	3
330-354 Astronomy	2
General Studies	3

Survey Technologist

Curriculum

For first four semesters, see page 188

Semester 5 (26 hours/week)	Credits
330-098 Geodesy <i>Pre-Req:</i> 330-488 Control & Elect. Survey	6
330-203 Engineering Surveys	4
330-495 Photogrammetry 2	4
330-099 Survey Camp 2	4
330-231 Statistics & Matrix Algebra <i>Pre-Req:</i> 330-230 Mathematics 1	4
330-494 Automated Survey Applications	4
Semester 6 (22 hours/week)	Credits
330-065 Adjustment of Observations <i>Pre-Req:</i> 330-231 Statistics & Matrix Algebra, 380-207 Calculus 2	4
330-460 Advanced Photogrammetry	4
330-498 Legal Survey Studies 2 <i>Pre-Req:</i> 330-493 Legal Survey Studies 1	6
330-497 Cartography	4
330-496 Computer Applications Lab 2 <i>Pre-Req:</i> 380-210 Computer Programming 2	2
330-091 Technical Project	2

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

- Ontario Secondary School Diploma or equivalent
- grade 12 English, grade 12 technical or academic mathematics and minimum of 2 credits in any combination of

senior level science and program related senior level technical courses (Physics at the senior level is strongly recommended)

In order to continue into third year of the Survey Technology program, students must meet the requirements for the Survey Technician Diploma with a minimum grade point average of 70%

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 draftsman, 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.

Automatic Machining Setter Operator

Queensway B Campus

48 weeks beginning every Monday

This program is designed to prepare you for employment as an automatic screwmachine operator. This is a very sophisticated machine tool that is used in most industries such as auto, aero, and appliance industries. You will be working on both single and multi-spindle machines. These machines are used to produce turned (cylindrical) components of many shapes and sizes at speeds which few machines can match. They are controlled by the use of cams, gears and cutting tools which

must be precisely set for each part produced. The screw-machine operator is always in great demand by this rapidly growing industry. The work week is generally five days, forty hours, with the possibility of shift work. Most screw-machine shops are noisy, and your hands may get dirty and oily. The job is very creative and rewarding.

Admission Requirements

- pretests in communications and mathematics
- admissions interview
- a working knowledge of mathematics, including whole numbers, fractions, decimals, percentages, and measurement

Curriculum

Measuring Instruments

Quality Control

Blue Print Reading

Single Spindle Machine Orientation and Set-up (construction, lubrication, etc.)

Multiple Spindle and set-up (Acme Grindley & Davenport machines)

CNC Screw Machine set-up

- you will also be required to be able to speak, read, and understand the English language without difficulty

ment in the screwmachine industry as single and multi-spindle operators, and turret lathe operators. In addition, with some on-the-job experience after graduating from the program, you may become a screwmachine setter or cam and tool designer.

Job Opportunities

Graduates of our training program have found employ-

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)

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
 Alternating current circuits
 Solid state devices
 Electronic circuits and applications
 Basic digital logic circuits
 Microcomputer Programming
 Microprocessors
 Video display system analysis and troubleshooting
 Analysis of microprocessor based systems
 Troubleshooting and repair of microprocessor based systems
 Job Search

Note: CEGC sponsors some students in this program. Please contact your local office. Note: Graduates of this program are normally admitted into any related technician/technologist program.

Drafting

Queensway B 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 in the mechanical drafting field. Once the mandatory objectives are completed, the students may undertake optional objectives (such as Jig & Fixtures, Structural Steel, Process Piping, and Electrical Drawings).

Most of the student's time is spent in practical drafting but time is given to drafting theory, mathematics (strength of materials) and Basic Com-

puter-Aided Drafting. For more information call 252-9441.

Admission Requirements

- pre-admission interview
- pretests in communications and mathematics
- working knowledge of mathematics including signed numbers, square root and powers, substitution, equations, formulas, graphing and geometry (written and verbal) is also required
- physical requirements for drafting include: sitting, reaching and handling

Curriculum

Make multi-view drawings
 Make mechanical assembly and detail drawings
 Select ferrous and non-ferrous metals
 Mathematics (strength of materials)
 Introduction to Computers and computer-aided drafting systems
 Life skills

Job Opportunities

After graduating, you may find opportunities for employment in the manufacturing industry, and engineering offices. Since the initial training for all draftsmen is the same, a transfer to another area of the work is possible with additional training and experience.

Transfer could be to any one area of architectural, electrical, mechanical, structural or technical drawing. A forty hour, five day work week is usual. With experience and good leadership qualities, you may advance to supervisor draftsman.

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.

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 or equivalent
- additional requirements are grade 12 English, grade 12 technical or academic mathematics and a minimum of two credits in any combination of senior level science and program related senior level technical courses.

Job Opportunities

With industry becoming more automated every year, there is a demand for instrumentation technicians.

Graduates will 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
328-002 Instrumentation Workshop Practices	2
354-107 Electrical Circuits & Applications 1	8
Communications 1	4
General Studies	3
Semester 2 (27 hours/week)	Credits
389-204 Physics 2	3
389-201 Mathematics 2	4
328-004 Pneumatic Instruments	4
328-103 Measuring Instruments 1	5
354-208 Electrical Circuits & Applications 2	4
Communications 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
<i>Pre-Req: 328-106 Automatic Controls 1</i>	
328-108 Electronics 1	5
389-100 Chemistry 1	2
328-106 Automatic Controls 1	5
<i>Pre-Req: 328-103 Measuring Instruments 1, 389-201 Mathematics 2</i>	
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
<i>Pre-Req: 328-106 Automatic Controls 1</i>	

Industrial Instrumentation Mechanic

Curriculum

Electrical Principles
DC Theory and Applications
AC Theory and Applications
Electronic Principles
Semi conductor Theory and Applications
Integrated Circuits
Digital Theory and Applications
Instrumentation Measurement and Control
Instrument Workshop Practices
Calibration Principles and Techniques
Measuring Principles
Pressure Measurement
Level Measurement
Temperature Measurement
Flow Measurement
Pneumatic Instrument Operation and Applications
Electronic Instrument Operation and Applications
Automatic Control Theory and Applications
Standard Instrument Symbols
Process and Instrument Diagrams
Analysis Instruments Theory and Applications

Queensway A Campus

Forty weeks beginning any Monday

The Industrial Instrumentation Mechanic program will enable you to function in today's technical and automated industries. Some of the subjects included in this program are mechanics, electronics, physics and chemistry. Graduates from this program will exhibit the ability to calibrate, troubleshoot, repair and maintain instruments for process measurement and control.

Admission Requirements

- an admissions interview, as well as pretests in communications and mathematics, to be conducted at the College, is required at least one week prior to your proposed starting date. You should have a working knowledge of mathematics, including substitution, equations, formulae, graphing, and trigonometry.

Job Opportunities

This occupation requires that a person enjoy dealing with physics and electricity. It requires logical thinking, numerical ability, and the ability to understand the principles of instrumentation construction and operation, and the skill to apply appropriate techniques for installation, repair and adjustment. There is an increased need for well-trained men and women to maintain, service, operate, and sell instrumentation equipment. Graduates of this program will be in demand in a great variety of industries. Duties may include maintenance, repair, calibration and troubleshooting.

Transfer is possible to other positions within the occupation requiring similar skills or with limited additional training such as analytical instrumentation with oil companies and government laboratories.

Industrial Maintenance Mechanic (Packaging), (Millwright)

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

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. Teachers are available to students on a one-to-one basis (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 equations and 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
- 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.

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

(Basic and Intermediate Levels only)

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

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: discussion and develop cultural, educational, political, economic and social skills, concepts and values in relation to self, family, job and community.

Industrial Resource Centre

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 within print specifications any of a variety of machine tools such as lathes, drill presses, milling machines and grinders, read and interpret blueprints and operational sequence sheets.

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.

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

Marine and Small Powered Equipment Mechanic

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

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 knowl-

edge 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 may wish to go into business for yourself.

Work Environment

A normal five-day, forty-hour week is required. Week-end 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.

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

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

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: CEIC sponsors some students in this program. Please contact your local office. Note: Graduates of this program are normally accepted into any related technician/technologist program.

Numerical Control Machine Programmer/Operator

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 troubleshoot new programs on numerical control machines.
- Other topics



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 (similar to those used in correspondence programs) 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 a basic knowledge of conventional machine shop operations and 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 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.

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, woodworking, industrial instrumentation, photographic equipment repair and automatic screwmachine operations.

The flexible timetable, 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

- preadmissions 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

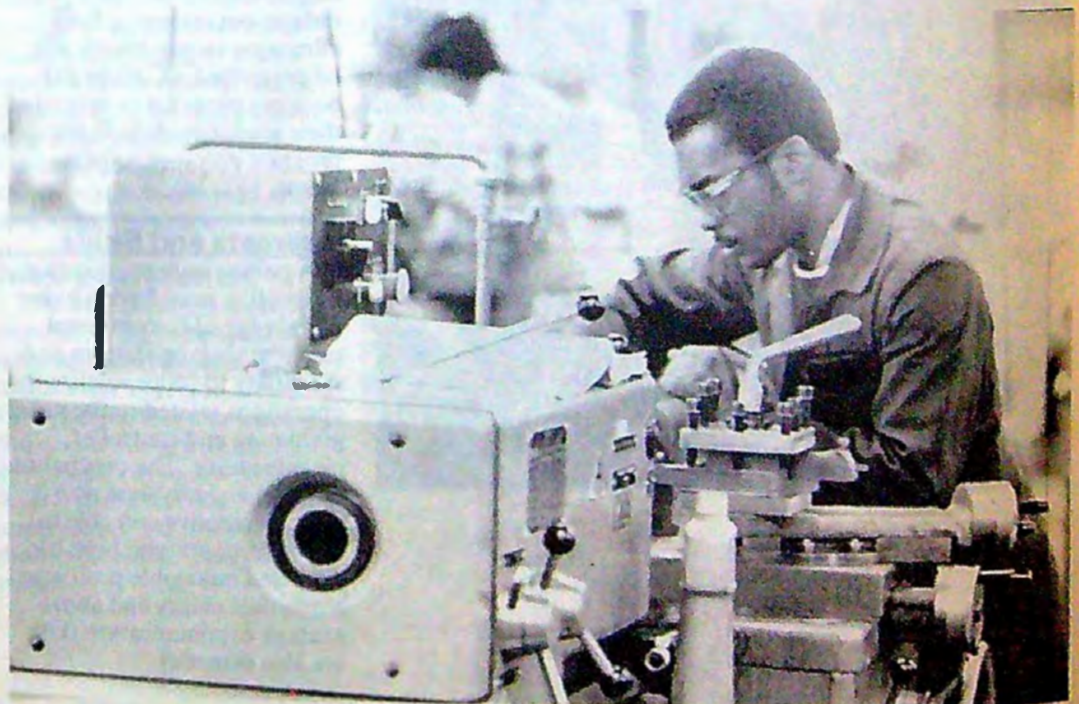
Program Outline (Camera Option - 18 weeks)

Job Search Techniques
 Electric & Electronic Fundamentals
 Fabrication and Manufacturing Processes
 Precision Instrument Technology Fundamentals
 Applied Precision Instrument Technology
 Photo Technology
 Overhaul Photographic Equipment

Administrative Requirements

(Precision - 30 weeks)

Drafting Fundamentals
 Industrial Instrumentation
 Electric & Electronic Fundamentals
 High Technology
 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

Curriculum

Direct current circuits
 Alternating current circuits
 Solid state devices
 Electronic circuits and applications
 Digital Circuits
 AM and FM receiver systems
 Television systems and servicing
 Basic digital logic systems
 Microprocessors
 Job Search

Note: CEIC sponsors some students in this program. Please contact your local office. **Note:** Graduates of this program are usually admitted into any related technician/technologist program.

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.

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 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 or equivalent
- grade 12 English
- grade 12 technical or academic mathematics
- a minimum of 2 credits in any combination of senior level science and program-related senior level technical courses

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
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
	Communications 1	4
Semester 2 (25 hours/week)		Credits
371-001	Gas and Diesel Motors	4
371-250	Yacht Maintenance & Repair 2	8
	<i>Pre-Req:</i> 371-150 Yacht Maintenance & Repair 1	
371-036	Navigation	3
371-120	Electrical Circuits & Applications	3
	Communications 2	4
	General Studies	3
Semester 3 (26 hours/week)		Credits
371-217	Seamanship 2	3
	<i>Pre-Req:</i> 371-117 Seamanship 1 Power & Sail	
371-208	Yacht Design 2	3
	<i>Pre-Req:</i> 371-108 Yacht Design 1	
371-218	Small Craft Electronics	3
371-037	Sailing School Charter Fleet Operations and Yacht Brokerage	3
	<i>Pre-Req:</i> 371-036 Navigation	
371-350	Boatbuilding & Repair 1	8
371-119	Marina and Yacht Club Design, Construction and Operations 1	3
Semester 4 (24 hours/week)		Credits
371-213	Outboard Engines & Marine Drive Trains	4
	<i>Pre-Req:</i> 371-001 Gas and Diesel Motors	
371-450	Boatbuilding & Repair 2	8
	<i>Pre-Req:</i> 371-350 Boatbuilding & Repair 1	
371-121	Standard Operating Procedures & Office Routine	3
371-129	Marina and Yacht Club Design, Construction and Operations 2	3
	<i>Pre-Req:</i> 371-119 Marina and Yacht Club Design, Construction and Operations 1	
371-039	Marine Contracts, Insurance and Taxation	3



Please note that a third year technologist level program suited to individual needs could be offered.

Small Engine & Powered Equipment Mechanic

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

Queensway A

This is a continuous intake 30-week program using prepared learning packages. Teachers are available on a one-to-one basis.

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.

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.



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

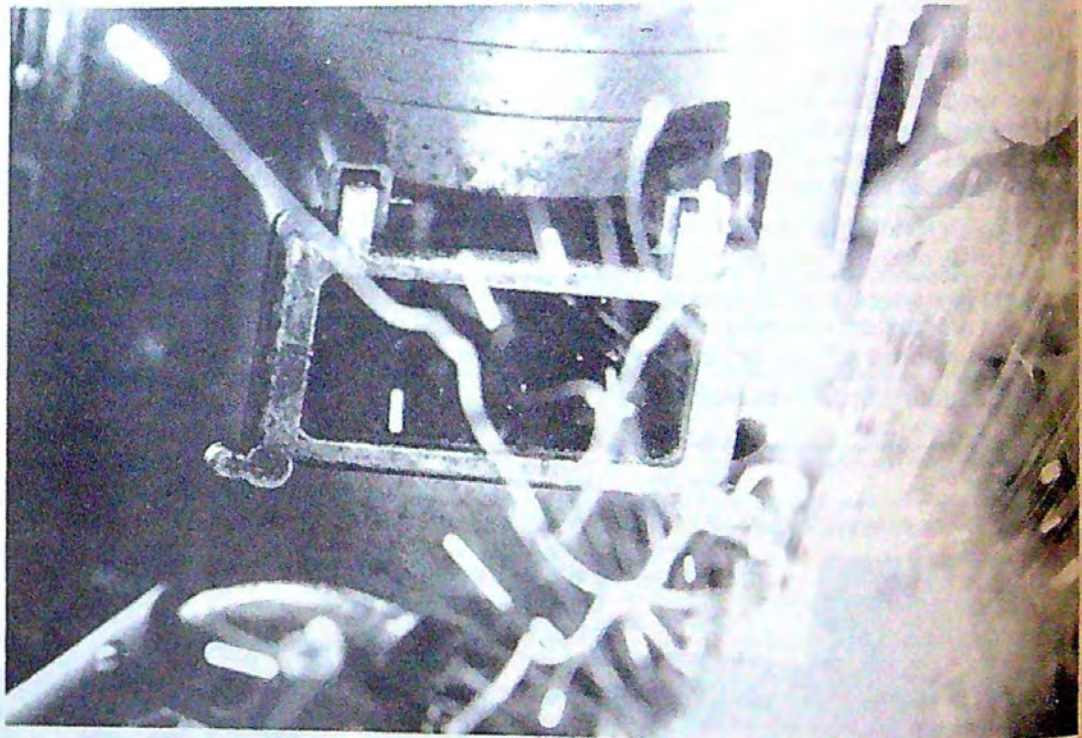
- admissions interview
- pretests in communications and mathematics, to be conducted at the college, at least one week prior to the student's proposed start date
- mathematical facility with whole numbers, fractions, decimals, percentages, measurement, ratio and proportion
- a good command of English (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



Descriptions for Communications and General Studies courses can be found in the Human Studies section, beginning on page 154.

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, var-cov matrix and the ellipse 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) 330-568

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 operating and applications with 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 fundamental algorithms and data structures started in Algorithms and Data Structures I. 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 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 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 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, complexome-

tric 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 electro-magnetic 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.

Architectural CADD 1 330-552

The student will gain skills in Computer Aided Drafting and Design using AutoCad software on IBM microcomputers.

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 multi-purpose 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 1 330-540

Students will investigate architectural graphic presentation techniques. Course content will include linework, lettering graphic conventions, layouts, axonometric projections, and one and two point perspectives. Freehand and hardline approaches will be used.

Arch. Graphics 2 330-549

The student will be able to produce plan and elevational presentation drawings using basic pencil techniques, including different technical and artistic aspects such as

technical shading, rendering of different materials and landscaping, one and two point perspective drawings with supporting elements such as landscaping, cars, and people.

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 methods 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 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.

Assembler Programming 350-214

This course leads students from an understanding of the primitive actions a computer can perform (as discussed in Computer Architecture 1) to non-trivial programs in assembly language. The student will write assembler programs using the VAX based N32000 cross-assembler, the VAX-II Macro assembler and the IBM PC Macro assembler. Topics covered will include instruction sets, addressing modes, nested subroutines, recursion, macros, conditional assembly and I/O programming. Good programming techniques and practices are emphasized.

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 trigonome-

try 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.

Automatic Controls 2 328-206

This course continues from Automatic Controls 1 and covers in some depth the dynamics of all four elements in a control loop, namely, the measuring element, the controller, the final control element, and the process. It concentrates on analysis of the process for signal transmission using transfer functions. Electrical, liquid, gas, thermal and mechanical systems are considered as signal transmission media and the gain and phase shift are established for each block in a loop diagram. A computer program is used to calculate open and closed loop frequency responses to establish optimum controller mode settings.

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 320-527

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 theo-

retical 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.

Building Engineering (Composite) 330-554

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 ele-

ments. Knowledge gained will be reinforced through the drafting of a number of structural elements including details, sections, framing plans and elevations.

Building Engineering (Concrete) 330-550

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.

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.

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, colourproofs, scribbling 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 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/CADD**330-524**

The student will acquire more advanced skills in the drafting of civil engineering construction documents, concentrating on advanced reinforced concrete plans, details and sections. Computer Aided Drafting and Design techniques will be introduced.

Combustion Technology**330-319**

The student shall be able to state, select and install natural gas fired appliances as per the Ontario Gas Utilization Code. This course is designed to prepare the student to write the Ministry of Consumer and Commercial Relations, Energy Branch Gas Fitter 2 licence. The successful completion of this course does not insure the student his Gas Fitter 2 licence. If the opportunity to write the Gas Fitter 2 licence is made available to the students an additional cost is administered and this cost is the responsibility of the student.

Comm. Syst. 1**320-029**

The course encompasses central systems and all-air systems including single-zone variable air volume, 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 these 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**330-547**

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 Applications**330-530**

The student will gain skills in the application of basic programming languages to the solution of problems in structural engineering involving the design of force systems.

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**350-226**

A study of the broad spectrum of microcomputer applications from single chip embedded microcomputers up to super micro's. The emphasis will be on hardware, circuitry and related systems.

Computer Applications Lab 2**330-496**

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 Applications 1**330-491**

Operation of a video display terminal, handling of numbers and strings, read-data input, print statements, if, goto, on-goto and for-next statements, library functions and user defi-

ned functions and programming associated with survey applications.

Computer Architecture 2**350-233**

Computer Architecture 2 is a continuation of Computer Architecture 1 covering a selection of advanced topics including virtual memory, floating-point hardware, I/O channels, co-processors and multi-processors. The architecture and operation of the National Semi DB32016 single board microcomputer is studied in depth. The Intel 80X8X microcomputer family, the IBM PC and the DEC VAX 11/750 are also studied.

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**380-178**

Algorithmic solutions to computer problems will be developed, flow-charting will be illustrated, and computer instructions will be coded in the FORTRAN and BASIC languages.

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 Programming 1**380-209**

Algorithmic solution to computer problems will be developed with the aid of flow-charting. Instructions will be coded in the BASIC language.

Computer Programming 2**380-216**

Study of matrix operations and computer programming to carry out these operations. Study of apple computer system. Two dimensional arrays, nested loops, subroutines and library functions, sorting and searching techniques.

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 student should have a greater understanding of the role and impact of computers in the business environment.

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, trigonometric elevations by reciprocal zenith distances.

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.

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.

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, IAGL programming, and NC tool path generation.

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 the preparation of drawings, schedules, and

other CADD-related documents.

CAM 1 320-307

The student will learn to use the application software specialities of the Applicon system. The student will learn to create plain and cylindrical 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 Systems 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 plan-

ning 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 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 relays circuits as seen in programmable control systems.

Elect. Production Technology 1 350-094

This course is the first part of a two-semester project. In this part, students master the basic skills of Electronic Drafting and Printed Circuit Layout Techniques and become familiar with a cross-section of drafting conventions and practices. A suitable project and a complete set of drawings to good commercial standards must be produced. Each drawing assignment is a practical application of lecture theory, and a student gradually develops drafting skills and electronic design understanding.

Elect. Production Technology 2 350-194

This is the Construction Phase of the two semester Electronic Production Technology project. 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 prototyping techniques. Safety procedures, manufacturing practices, testing procedures and troubleshooting methods will also be learned. The final product 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 1 350-083

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 and clipping and clamping circuits. The theory of operation of the VOM and oscilloscope are studied and these instruments are used in the laboratory.

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, Millman's 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 2 350-102

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.

380-224 Math 1

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 3 350-103

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.

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 Circuits & Applications 4 350-104

This course covers topics in power supplies and regulators, pulse shaping, switching and generating circuits, including the 555 timer and the thyristor family of industrial power control devices.

Electrical 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.

Electrical 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.

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 layout, 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 descrete 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 electri-

cal 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. 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 appli-

cations. 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 gleaned 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 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 today's 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.

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 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.

Environmental Systems 330-551

The student will gain a through 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 multi-storey office building.

Final Control Elements 328-018

This course covers the various types of Final Control Elements used in a closed control loop, including: control valves, dampers, fans, weigh-feeders, 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 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 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 open 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 Power Circuits and Controls 1 320-209

This is a continuation of the Industrial Hydraulics course. It discusses typical industrial hydraulic circuits, analyses the relation and interaction between components and sub-systems. Topics include: load analysis, component matching and steady state characteristics.

Fluid Power Circuits and Controls 2 320-210

This course introduces moving part logic and the theories and equipment associated with this method of control. It will enable the students to design complex pneumatic control circuits using Boolean Algebra and other accepted methods. It will introduce hardware in the laboratory through projects.

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.

Fundamentals of Building Engineering 330-545

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.

Fundamentals of Manufacturing Processes 320-240

The objective of this course is to introduce the fundamentals of various production processes used in secondary and primary industries. The processes related to the secondary industries will include: casting, machining, forming & shearing processes. The primary industry processes will be limited only to iron and steel making methods.

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, smallcraft 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, coordinate 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, AEGIS, 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 superheterodyne 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 instal-

lations. 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 Economics 320-071

To identify and analyze the factors affecting the business sector and its organization, the market structure and conduct, market performance, restriction of competition, and economic efficiency.

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 Electronics 2 354-204

The course takes the basic circuits and concepts previously learned to more complex electronic control devices such as proximity switches, resistance sensitive relays, motor speed controllers and other industrial control applications.

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 Instrumentation
354-003

This is an introductory course to familiarize the student with the pneumatic and electrical instrumentation. The semester will give the student an insight to ISA symbols and flow loops, sensors, transmitters, transducers, receivers, indicators, recorders, control valves and some control system.

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 Org. & Mgmt
320-256

This course will enable the student to develop and subsequently demonstrate an understanding of modern industrial organization, practices and theory.

Industrial Organic Chem.
340-164

The student will be expected to relate typical industrial reactions such as: halogenation, nitration, sulfonation, oxidation and polymerization to processes and practices in the petrochemical, agricultural, 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 Environmental Systems
330-546

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.

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 Management
330-542

Students will explore techniques in personal time management, designed to help them plan and co-ordinate their student activities and the variety of assignment deadlines that will be encountered during the remainder of this Technology Division program. Students will also be introduced to the complex professional relationships and responsibilities that exist in the construction industry.

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 microorganisms.

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 lock-out. 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.

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 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 metal industries, 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, Insurance and Taxation 371-039

This course is designed as a fundamental law course with emphasis on marine related law and admiralty jurisdiction. Law of the sea, liability, charters, salvage and marine insurance will be examined in detail, as well as taxation, corporations, partnerships, leases and sale of real property and contracts.

Marine Law 330-169

Elements of international law and regulations, United Nations convention on the law of Sea, regulations and guidelines of the Department of E.M.R.

Material Sciences 320-265

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 & 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 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 describing 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 1 380-224

Fundamental 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 1 330-230

Covering basic skills and applications of formula manipulation, solution of linear equations, law of exponents and trigonometry.

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 1 380-046

Fundamental concepts and operations; functions and graphs; trigonometric functions; systems of linear equations (2 equations in 2 unknowns); factoring and

fractions; quadratic, cubic, and 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 1 380-230

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, and 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 2 389-201

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 2 380-029

This course consists of the following topics: vectors and sinusoids, complex numbers and 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 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.

Mathematics 3 389-301

Derivatives (differentials) and their applications — (limits, differentiation of polynomials, products, quotients, transcendental functions, logarithmic and exponential functions, related rates, maximum and minimum); integrals and their applications — (definite, indefinite and numerical integration with applications to areas, volume and other problems).

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.

Mechanical Design & Drafting 3 320-288

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.

Mechanics 320-132

This course is an introduction to Mechanics with emphasis on analytical problem solving. It serves as a background to higher level or special courses dealing with specific aspects of Mechanics. The contents include vectors, translational and rotational equilibrium, linear and rotational motions, work, energy and power.

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 microorganisms. 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 microorganisms.

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 Controls 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.

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 the development of software skills. In the first part of the course the student will learn the steps of assembly language programming in a VAX/VMS-based hosted software environment, and in the second part he/she will develop programs which 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.

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.

Motion Study 320-273

The student will learn to analyse the various body motions employed in doing a job with the purpose of eliminating or reducing ineffective movements.

Through the use of visual motion study and micromotion study, the student will learn to analyse a given method and develop an efficient work centre.

The student will learn to establish standard times for manual operations using synthetic basic motion times systems.

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 print-out, debug-program, punch tape and successfully run tape on existing systems.

Numerical Methods 1 350-209

This course introduces the student to the practical solution of mathematical problems on computers. The course includes number systems and errors, solution of nonlinear equations, matrices and system of linear equations. Concepts of functions, limits and derivatives of functions will also be covered in the course.

It is assumed that the student is familiar with PASCAL language. A large number of the algorithms presented will be programmed by the student for solution using the VAX computer.

Numerical Methods 2 350-215

This course is a continuation of Numerical Methods 1. It includes the concept of integration, and the numerical methods of interpolation of polynomials, least square approximation by polynomials, differentiation and integration. It is assumed that the student is familiar with PASCAL language. A large number of algorithms presented will be programmed by the student for solution using the VAX computer.

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 (Lifestyle) 320-248

This course is designed to give safety engineering technology students a better understanding of a concept of lifestyle health as it relates to employees and to their occupation. This course examines lifestyle health problems and provides opportunities through seminar sessions for students to consider current health problems as well as preventive curative, and rehabilitative aspects of industrial programs. Some of the specific lifestyle problems that may be examined include: alcoholism, stress, obesity, back injuries, drug abuse, and psychosomatic diseases to mention a few.

These problems will be examined in the context of their relationship to their impact on the job performance.

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 boot-straps, system kernels, resident and non-resident overlays, system configura-

tions, 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. The VMS related topics complement the topics studied in Software Management.

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 communica-

tion 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, the off-the-shelf hardware required to interface the com-

puter to the peripheral and the programming required to operate the peripheral. The peripherals studied include video display terminals such as the VT 240, hard disk and floppy disk drives, SASI and SCSI interfaces, and magnetic tape drives.

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 (Heat, Light & Sound) 380-203

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.

Physics (Mechanics & Waves) 380-191

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.

tion, work, energy and power, and the mechanical properties of matter.

Program entry and successful pass on Math Diagnostic test are prerequisites.

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, refraction and mirrors, reflection, 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.

Plant Layout & Materials Handling 320-226

This is a primary course in plant layout emphasizing the essential coordination of plant layout, material handling, industrial engineering, production control and industrial safety, from a practical standpoint. It is the objective of this course to convey the fundamentals of material handling and layout from a quantitative viewpoint. Economic realism will be emphasized in all projects.

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, actuators 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 setup 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 dia-

grams 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.

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 Pareto 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 350-220

This course is an introduction to the hardware and software that make up a real time system. The student will study the connection between a physical process, the controlling hardware--a computer using a data acquisition and control subsystem, and the controlling software--the temporal events-driven application software. The topics covered in the course include SCADA (Supervision, Control and Data Acquisition) type of products, signal processing and PID algorithms, and real time software.

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 appli-

cation 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.

Safety Administration 320-311

The course will expose the student to indepth analyses of current legislation--Occupational Health and Safety Act W.C.B., Transport of Dangerous Goods Act, etc. for their effect in various segments of our working life. In addition the course will introduce the student to formal methodologies used in accident investigation and analysis.

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 Management 350-227

This course deals with the management of operating systems software and application software for typical micro, mini, and super-mini based computer systems. Specific examples of operating systems discussed during the course include IBM's PC-DOS, DEC's RT-11 and DEC's VAX VMS.

Software Project 1 350-217

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 the basic office procedures including bookkeeping, file maintenance, fundamental accounting, payroll records, banking, word processing, cash flows and corporate structures. Small business start-up, credit control, office equipment, purchasing meth-

ods and legislation effecting the day-to-day operations of a marina or yacht club business are some of the areas covered in this rather broad program that will familiarize the student with maintaining a sane and smooth running office environment.

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.

Statics 330-576

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.

Stress Analysis 320-234

This is a continuation of the course in Basic Strength of Materials with special emphasis on the stress developed in mechanical components due to static and dynamic load conditions. An introduction to more advanced techniques is included.

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.

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 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 trigonometric elevations, do stadia surveys, survey profile and cross sections, draw plan of location surveys and stadia topography, as well as perform calculations related to the above.

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 330-389

The student will prepare a technical project report which will be an account of research work done or comprehensive study undertaken which will demonstrate an appropriate level of technical, mathematical and report writing expertise.

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.

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 plastic, 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. Help the student to select, prepare for and apply paints, varnish and other protective coatings.

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| Aegrotat Standing | 7 | Civil Engineering Technologist
(Co-op) | 171 | Electromechanical Engineering
Technician/Technologist | 174-175 |
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Engineering Technician | 162 | Commercial Studies | 81 | Electronics Certificate–Radio
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Technician | 176 |
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Technologist | 177 |
| Applied and Creative Arts | 9 | Computer Engineering
Technologist | 173 | Emergency and Ambulance
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| Architectural Design Technician/
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| Architectural Technologist
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(Co-op) | 165 | Computer Programming Co-op
Diploma | 84 | Engineering Technician, Civil
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| *Arena Management | 129 | Construction Administration–
Architectural Technologist
(Co-op) | 165 | Engineering Technologist,
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Engineering Technician/ Technologist, Management	180	Humber Arboretum	20	Mechanic/Technician Industrial Instrumentation	194
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Campus Locations

North Campus

Athletics	675-5097
Campus Store	675-5044
CL Registration	675-5005
Part-Time Information	
Counselling	675-5090
Financial Aids Office	675-5001
Housing Information	675-5053
O.C.A.P. (training on the job program)	252-9997
Placement	675-5028
Registrar's Office	675-5000
Full-Time Information	
Secondary School Liaison	675-3111 Ext. 4301

Keelesdale Campus 763-5141

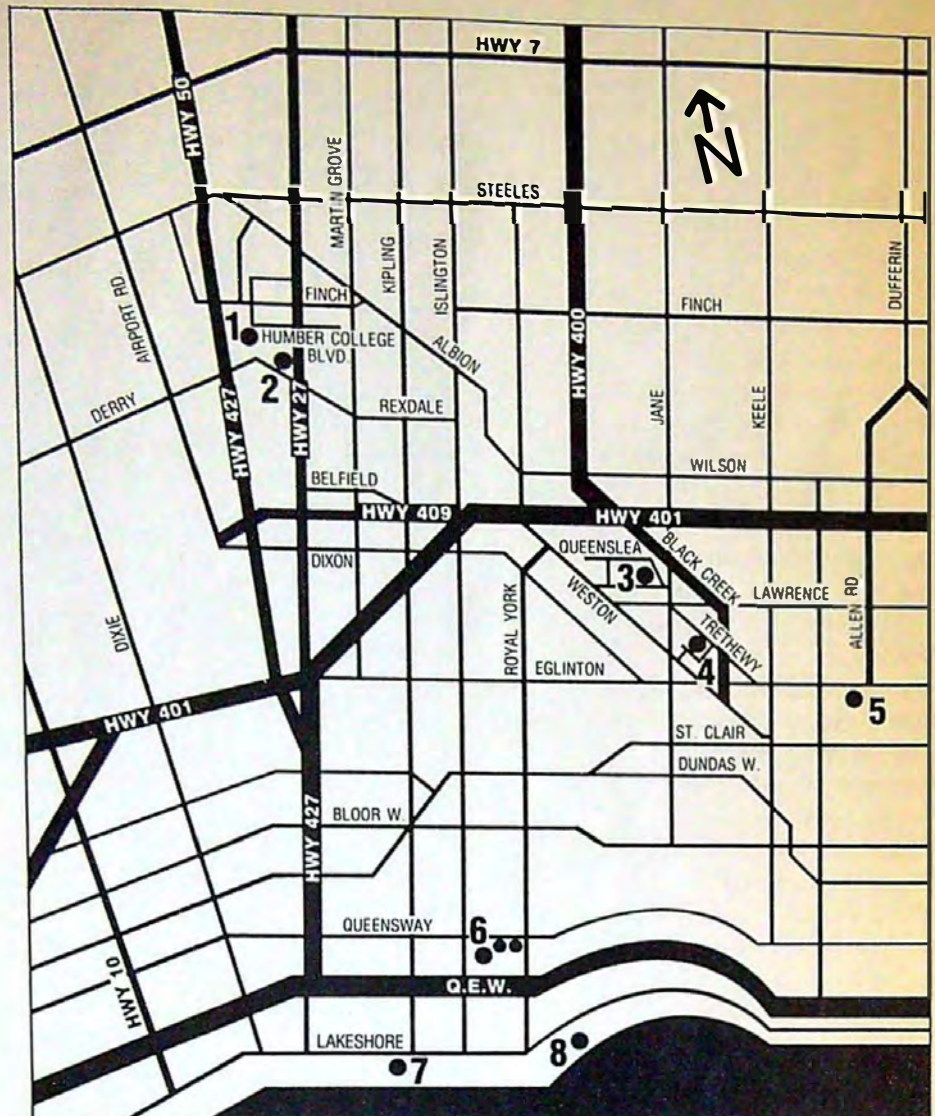
Lakeshore Campus 252-5571

Osler Campus 249-8301

Queensway A, B & C Campuses

Technical short programs
252-9441

York-Eglinton Campus 763-5141



1 North Campus
205 Humber College Blvd.,
Etobicoke, Ont. M9W 5L7

2 Woodbine Centre
500 Rexdale Blvd.,
Etobicoke, Ont. M9W 1S2

3 Osler Campus
5 Queenslea Avenue,
Weston, Ont. M9N 2K8

4 Keelesdale Campus
88 Industry Street,
Weston, Ont. M6M 4L8

5 York-Eglinton Centre
1669 Eglinton Ave. W.,
Toronto, Ont. M6E 2H4

6 Queensway A
56 Queen Elizabeth Blvd.
Toronto, Ont. M8Z 1M1

Queensway B
70 Queen Elizabeth Blvd.,
Toronto, Ont. M8Z 1A3

Queensway C
829 The Queensway
Toronto, Ont. M8Z 1N6

7 Lakeshore Campus
3199 Lakeshore Blvd. W.,
Toronto, Ont. M8V 1K8

8 Sailing School
Humber Bay Park W.
Lakeshore Blvd.

Notes



1. North Campus
 2. West Campus
 3. East Campus
 4. South Campus
 5. Central Campus
 6. West Campus
 7. East Campus
 8. South Campus
 9. North Campus
 10. West Campus
 11. East Campus
 12. South Campus
 13. North Campus
 14. West Campus
 15. East Campus
 16. South Campus
 17. North Campus
 18. West Campus
 19. East Campus
 20. South Campus

1. North Campus
200 North Main St.
100 North Main St.
2. West Campus
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20. South Campus
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200 South Main St.

Notes

Introduction of Water

The introduction of water is
 made in the year 1882. The
 water is taken from the
 mountain side near the
 station. It is filtered
 through a sand filter
 and then through a
 cloth filter. The water
 is then pumped into
 the city. The water is
 very pure and is
 very good for drinking.

Notes

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M9W 5L7
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Declaration of Waiver

The information in this calendar is accurate as of August 1, 1986. 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, 1986, 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.

