DIVISION OF LIFELONG LEARNING

DIVISION OF LIFELONG LEARNING

SECTION CONTENTS

Personnel . . . 259

1 Certificate Programs . . . 259
1.1 Admission Requirements . . . 259
1.2 Regulations for a First Certificate . . . 259
1.3 Regulations for a Second Certificate . . . 259
1.4 Certificate in Business Administration . . . 259
1.4.1 Regulations for the Certificate in Business Administration . . . 259
1.5 Certificate in Career Development . . . 259
1.5.1 Regulations for the Certificate in Career Development . . . 259
1.6 Certificate in Criminology . . . 259
1.6.1 Regulations for the Certificate in Criminology . . . 260
1.7 Certificate in Library Studies . . . 260
1.7.1 Regulations for the Certificate in Library Studies . . . 260
1.8 Certificate in Municipal Administration . . . 260
1.8.1 Regulations for the Certificate in Municipal Administration . . . 260
1.9 Certificate in Newfoundland Studies . . . 260
1.9.1 Regulations for the Certificate in Newfoundland Studies . . . 260
1.10 Certificate in Public Administration . . . 260
1.10.1 Regulations for the Certificate in Public Administration . . . 260
1.11 Certificate in Records and Information Management . . . 260
1.11.1 Regulations for the Certificate in Records and Information Management . . . 260

2 Certificate Course Descriptions . . . 261
2.1 Career Development . . . 261
2.2 Criminology . . . 261
2.3 Library Studies . . . 261
2.4 Municipal Administration . . . 261
2.5 Records Management . . . 261

3 Diploma in Information and Communications Technology . . . 261
3.1 Program Objectives . . . 262
3.2 Admission Requirements . . . 262
3.3 Program Requirements . . . 262
3.4 Evaluation, Continuance and Transfer . . . 262
3.5 Work Term . . . 262
3.6 Awarding of Diploma . . . 263
3.7 Course Load . . . 263
3.8 Course List . . . 263

4 Personal and Professional Development . . . 264

DIVISION OF LIFELONG LEARNING

Acting Director
Healey, E.M., B.Voc.Ed., M.Ed. *Memorial*

Administrative Staff
Clairmont, G., Administrative Secretary

The Division of Lifelong Learning is dedicated to providing open and accessible learning opportunities in conformity with the University's strategic outreach education and its dedication to providing a superior learning environment through responsive and innovative teaching as outlined in the document "Launch Forth".

1 Certificate Programs

The following certificate programs are available through the Division of Lifelong Learning. These programs are offered by and are under the academic control of the appropriate faculties and schools.

1.1 Admission Requirements

Students who wish to complete certificate programs must be admitted to the University as undergraduate students and comply with the **General Academic Regulations (Undergraduate)**.

1.2 Regulations for a First Certificate

A Memorial University of Newfoundland certificate is awarded to students who complete certificate program requirements.

1. Every candidate for a certificate shall comply with all the course requirements governing the award of that certificate.
2. Candidates shall complete at this University a minimum of 9 credit hours of the total number of credit hours required for a certificate.
3. No candidate will be awarded a certificate unless s/he has obtained an average of 2 points or better on the total number of credit hours required for the certificate.

1.3 Regulations for a Second Certificate

Students who have completed a certificate program and wish to complete a second certificate must:

1. comply with all course requirements governing the award of that certificate; and
2. complete at least 9 credit hours beyond those required for the first certificate. The courses which comprise these credit hours must be applicable to the certificate sought.

1.4 Certificate in Business Administration

The Certificate in Business Administration is widely recognized by business and industry. It is designed for management-entry level employees who are interested in career development. Courses completed on the certificate program can be applied toward the diploma and the general degree of the Bachelor of Commerce, and the Bachelor of Business Administration.

Students who have a particular interest in Accounting, Marketing, Human Resources and Labour Relations, Small Business/ Entrepreneurship or Information Systems should consult with the Division regarding choice of elective courses.

1.4.1 Regulations for the Certificate in Business Administration

To be eligible for the Certificate in Business Administration a student must have:

1. Completed the following 30 credit hours: Business 1000, 1101, 1201, 2301, 4000, Either 3320 or 4320 and 12 credit hours in business electives which may include Computer Science 2801
2. At least two years of full-time work experience or equivalent.
3. At least two years during which the student has not been in full-time attendance at a secondary or post-secondary institution.

1.5 Certificate in Career Development

The Certificate in Career Development is designed for persons working in the career development field who wish to consolidate and deepen their knowledge base. The program will provide a grounding in career development theory and practice for those wishing to enter the field. The practicum will give new entrants to the field valuable work experience and will allow existing practitioners the opportunity to reflect on and improve their practice.

1.5.1 Regulations for the Certificate in Career Development

1.5.1.1 Curriculum

Students will be required to complete a total of ten courses as follows:

1. Required Courses: Career Development 1000, 1100, 1200, 1210, 1220, 1300, and 3000
2. Three Elective Courses from the following list: Career Development 2000, 2001, 2100, 2200, or 2300

Notes: *1. Students are required to meet **UNIVERSITY REGULATIONS - Admission/Readmission to the University (Undergraduate)** for entry to Memorial University of Newfoundland.*
2. Students may receive up to three exemptions for equivalent course work completed through another program or at another institution. If students have previously obtained credit from Memorial University of Newfoundland for any of the courses on a certificate program, they are not required to repeat these courses. To receive exemptions for certificate credit courses, students must make a written request with supporting documents (transcripts and course descriptions) to the Program Developer, Certificate Programs, Division of Lifelong Learning for consideration by the Advisory Committee for the certificate.

1.6 Certificate in Criminology

The Certificate in Criminology is designed for members of the community who have a special interest in the structure and administration of criminal justice. The program is of particular interest to persons engaged in law enforcement, corrections and rehabilitation.

1.6.1 Regulations for the Certificate in Criminology

To be eligible for the Certificate in Criminology a student must complete the following:

1. Fifteen credit hours including Psychology 1000; Sociology 3290, 3395; one of Political Science 1000, 1010, 2710; and one of Sociology 1000, 2000.
2. Six credit hours chosen from the following where a maximum of 3 credit hours can be in one subject area:

   Anthropology 2492; Political Science 2000, 2710, 3720, 3741; Psychology 2012, 2100, 2800, 3533, 3640; Social Work 2510, 3510, 3721, 4612, 5112; Sociology 2100, 2230, 2250, 3120.

   Note: *In some cases, students may substitute one optional course not listed in section 2, that has relevance to their area of speciality and to the field of criminology. Students may submit their request, in writing, to the Program Developer, Certificate Programs, Division of Lifelong Learning. The Advisory Committee will consider the request. Permission to substitute must be obtained prior to the student enrolling in or completing the course.*
3. Two of Criminology 1302, 1303, 3301.

   Note: *Criminology 3301 Selected Topics in Criminology is not offered on a regular basis. Students may enroll in this course several times as content changes, however it may be applied to the certificate only once.*

1.7 Certificate in Library Studies

The Certificate in Library Studies is for persons working in a library who wish to be more accomplished providers of library services. The program will benefit personnel in school, public, university, medical, legal, and special interest libraries.

1.7.1 Regulations for the Certificate in Library Studies

To be eligible for the certificate in Library Studies a student must complete the following:

1. Business 2000; Library Studies 1601, 1602, 1603, 1606, 1609.
2. Four courses chosen from Library Studies 1604, 1605, 1610, 1611, 2606, 3600, 3601-3609.

Note: *In some cases, students may substitute one elective course that has relevance to their area of speciality and the field of library studies. Students may submit their request in writing to the Program Developer, Division of Lifelong Learning for consideration by the Advisory Committee.*

1.8 Certificate in Municipal Administration

The Certificate in Municipal Administration is intended for employees of municipalities, and other interested parties, who wish to develop skills used in the administration of municipal services.

1.8.1 Regulations for the Certificate in Municipal Administration

To be eligible for the Certificate in Municipal Administration a student must complete the following:

1. Municipal Administration 1701, 1702, 2703, 2704, 2705, 2706.
2. Two courses chosen from Business 2000, 2301, 3320, 4320; Municipal Administration 2707.

1.9 Certificate in Newfoundland Studies

The Certificate in Newfoundland Studies is designed for those who wish to expand their knowledge of Newfoundland and Labrador. The program will be useful to persons involved in community, rural and northern development; cultural affairs, tourism, education and archival and library services.

1.9.1 Regulations for the Certificate in Newfoundland Studies

To be eligible for the Certificate in Newfoundland Studies a student must complete 24 credit hours in at least four different subject areas chosen from the following:

Anthropology 3290, 3850; Economics 2070,3070; Education 3571; English 3155; Folklore 2300, 2230; Geography 3290, 3490; History 3110, 3120; Linguistics 2210; Political Science 3780; Religious Studies 3900, 3901; S/A 2220, 2230.

A maximum of 6 credit hours may be chosen from the following:

Anthropology 4280; Business 2000; Economics 3080; Folklore 2401, 3860, 4310, 4400; Geography 4690; History 4230, 4231; Linguistics 4220; Political Science 3790, 4731.

1.10 Certificate in Public Administration

The Certificate in Public Administration is intended for public sector employees and any others who wish to further their understanding of the administration of public policy and public programs.

1.10.1 Regulations for the Certificate in Public Administration

To be eligible for the Certificate in Public Administration a student must complete the following:

1. Business 2000, 2301; Political Science 2710, 2711, 3540, 3741.
2. Six credit hours chosen from each of two of the following groups A, B, C for a total of 12 credit hours.

   Group A courses: Business 1000, 1101, 2101, 3320, 4320.
   Group B courses: Political Science 1000, 1010, 3720, 3730, 3770, 3790, 4730, 4790
   Group C courses: Any 6 credit hours in arts, science or business electives.

1.11 Certificate in Records and Information Management

The Certificate in Records and Information Management provides continuing education to those working in the records, archival and information management fields and certification in a developing profession in which practitioners have limited access to relevant upgrading.

1.11.1 Regulations for the Certificate in Records and Information Management

To be eligible for the Certificate in Records and Information Management a student must complete the following:

1. Business 2000, 3700; Computer Science 2801 or 2650 (or equivalent); Mathematics 1080 (or equivalent); Records Management 1000, 1001, 1100, 2000.
2. Two courses chosen from Business 5700, 6700; Political Science 3540, 3741; Municipal Administration 1701, 2705.

2 Certificate Course Descriptions

In accordance with Senate's *Policy Regarding Inactive Courses*, the course descriptions for courses which have not been offered in the previous three academic years and which are not scheduled to be offered in the current academic year have been removed from the following listing. For information about any of these inactive courses, please contact the Head of the Department.

Certificate courses are specially designed courses relating to specific areas of study for which no equivalent degree credit course exists and are not applicable towards an existing diploma or degree program.

2.1 Career Development

Courses in the Certificate in Career Development are designated by CADV.

1000 Career Development I - inactive course.

1100 Assessment in Career Development I - inactive course.

1200 Interpersonal Communications - inactive course.

1210 The Nature of the Helping Relationship - inactive course.

1220 Group Facilitation - inactive course.

1300 The Nature of Work, the Workforce and the Workplace - inactive course.

2000 Career Development II - inactive course.

2001 Career Development for Special Populations - inactive course.

2100 Assessment in Career Development II - inactive course.

2200 Program Design, Implementation, and Evaluation - inactive course.

2300 The Emerging Economy - inactive course.

3000 Practicum in Career Development - inactive course.

2.2 Criminology

1302 Criminal Procedure and the Administration of Criminal Justice examines the flow of criminal matters through the criminal justice system. Topics include the investigation into criminal complaints, search and seizure, arrest, release (bail), elections and pleas, preliminary inquiries, trials, sentencing, appeals and the ultimate disposition.

1303 Corrections in the Criminal Justice System examines the role of corrections in the Canadian criminal justice system which seems to be in constant change. These changes will be reviewed, updated and evaluated as we look at the two-dimensional role of corrections in justice: correctional institutions (prisons) and the community/after-care functions. Includes a review of new Canadian legislation affecting the above areas, as well as an examination of sentencing options and the Canadian pardon system.

3301 Selected Topics in Criminology

2.3 Library Studies

1601 Introduction to Libraries introduces students to the organization, functions, and services in various types of libraries. The course will also cover some aspects of the history of libraries, ethical considerations in library work (freedom of information and access, copyright), and collection development.

1602 Technical Processing explains the theory and practice of the various aspects of technical processing: acquisitions, cataloguing, classification, serials and circulation.

1603 Reference examines reference services, the reference interview and search strategies. Reference sources, materials and research methods will be examined.

1604 Adult Services covers library services directed towards adults, with an emphasis on the genres of fiction and non-fiction works, the promotion of literacy and leisure reading, and reference tools.

1605 Children's Services looks at fiction and information books appropriate for children from birth to teenage years. Coverage will include library publicity and the promotion of books through children's programming.

1606 Introduction to Library Technology is intended for those interested in how technology is shaping library services and collections. Topics include an introduction to computer hardware, network topography, HTML, Integrated Library Systems, proxy servers, electronic journal procurement, electronic indexes, and evolving user interfaces. It also looks at the way technology has changed the workflow in libraries and the impact that this has had on library organization and staffing.

1609 Managing Libraries is an introduction to the management function in the library setting, including job descriptions, policies and procedures, legal aspects, budgeting, organizational structure and interrelationships, and public relations.

1610 Library Services for Business and Industry focuses on the provision of library services to business and industry, with emphasis on specific strategies for providing information to business and industry users, the role of in-house information services and libraries, and the interaction between the library, management, and administration in business and industry settings.

1611 Multimedia Operations in the Library Setting covers current trends in the information revolution, and their effect on communications in the library setting. Students will be introduced to applications of multimedia to library work, including audiovisual resources, desktop publishing and other software, computer networking, and the creation of promotional materials. The course is intended to be a hands-on introduction to these applications.

2606 Advanced Topics in Library Technology offers an overview of popular technologies like blogs, wikis, web search engines, relational databases, wireless networks, personal computing devices, and XML, with an emphasis on their application in the world of libraries. The course provides a basic understanding of library-specific protocols and standards including the NISO Circulation Interchange Protocol (NCIP), Radio Frequency Identification (RFID), Electronic Data Interchange (EDI), Unicode, and cataloguing schemas for digital objects.
Prerequisite: Library Studies 1606

3600 Directed Research/Project allows students to develop and work on a research paper or project under the direction of a Library Studies instructor/ facilitator, and with approval from the Advisory Committee.
Prerequisite(s): any two Library Studies courses below the 3000 level.

3601-3609 Special Topics in Library Studies examines specific courses developed to meet particular needs, new topics, and current trends in library studies work.
Prerequisite(s): any two Library Studies courses below the 3000 level.

2.4 Municipal Administration

1701 Introduction to Municipal Accounting - inactive course.

1702 Introduction to Local Government - inactive course.

2703 Municipal Law - inactive course.

2704 Municipal Financial Administration - inactive course.

2705 Municipal Administration - inactive course.

2706 Municipal Planning and Community Development - inactive course.

2707 Selected Topics in Municipal Administration

2.5 Records Management

1000 Introduction to Records Management - inactive course.

1001 System and Functions in Records Management - inactive course.

1100 Introduction to Archival Science - inactive course.

2000 Records Classification Systems - inactive course.

3 Diploma in Information and Communications Technology

The Diploma in Information and Communications Technology is designed to provide individuals already possessing a post-secondary diploma or degree in any field with the knowledge and skills required to work in today's high technology environment. The program will benefit individuals from a wide variety of backgrounds, including business, education, technical, and administrative.

The program is offered in a collaborative learning environment with a problem-solving focus. The instructors are experienced and

industry-certified by Microsoft and Cisco. The Division of Lifelong Learning is the Cisco Regional Academy for Newfoundland and Labrador; Cisco is a world leader in networking for the Internet.

Two options are available for completion of the Diploma in Information and Communications Technology:

1. Option 1. is taken on a full-time basis and is comprised of three semesters and consists of 32 credit hours and one work term.
2. Option 2. is comprised of 35 credit hours and can be taken full-time in three semesters or part-time in seven semesters.

3.1 Program Objectives

The program focus is on four areas: E-Commerce, networking, programming, and databases.

Graduates of the program will:

1. Enhance their academic and other credentials with practical technology skills.
2. Obtain skills and knowledge that will prepare them to work effectively within a high technology environment.
3. Demonstrate the ability to work as part of a team.
4. Develop skills required to analyze an organization's information and communications technology needs and design a customized solution.

3.2 Admission Requirements

Applicants to the Diploma in Information and Communications Technology normally must have successfully completed a three-year diploma or degree from an accredited post-secondary institution and attained a minimum of 65% on the last 15 courses completed. Admission to the program is limited and competitive. Application to the program must be made in writing to the Division of Lifelong Learning on the appropriate form, and must include an official transcript of post-secondary marks. Applications must be submitted by June 1 for Fall semester, October 1 for Winter semester, and February 1 for Spring semester. Applications received after these deadlines will be considered only if a place is available. In addition, students who have not registered for courses at Memorial University of Newfoundland for either of the two immediately preceding semesters must also complete an application for admission/readmission to the University.

Selection of candidates will be based on academic performance and on other criteria considered suitable for an information technology professional, including but not limited to evidence of the ability to cope with a demanding schedule or demonstrated mathematical ability.

Candidates pursuing Option 2. will be required to have at least one year of full-time work experience or equivalent.

3.3 Program Requirements

The Diploma in Information and Communications Technology consists of the set curriculum outlined below. All courses are specifically designed for the Diploma in Information and Communications Technology only, and are not applicable towards any other existing degree or diploma program. Courses are normally offered sequentially in an accelerated format. Students enrolled in Option 1. will be required to complete a work term component. A work term is not available under Option 2., however, a substantial project (INFO 4500) will be required of each participant prior to completion of the program. Students completing the program on a part-time basis must do so within three calendar years from the date of admission to the program. Students completing the program on a full-time basis must do so within four semesters from the date of admission to the program.

3.4 Evaluation, Continuance and Transfer

The passing grade for each course is 65%. A pass must also be awarded for the work term. Evaluation may include, but not be limited to, any or all of the following: projects, assignments, examinations, and class participation.

Students who obtain a numerical grade of less than 65% in no more than two of the Diploma in Information and Communications Technology courses will be given a probationary promotion and will be required to repeat the course(s) in the next semester in which it (they) is (are) offered.

The foregoing notwithstanding, students will be required to withdraw from the Diploma in Information and Communications Technology program if:

1. a final numerical grade of less than 65% is obtained in more than two courses, or
2. a final numerical grade of less than 65% is obtained in a repeated course, or
3. a final numerical grade of less than 50% is obtained in any one course.

Students may be considered for readmission by the Admissions Committee, Division of Lifelong Learning.

Students who choose to drop a course(s) are strongly encouraged to consult with the Division of Lifelong Learning to ensure their program can be completed within the specified time.

Students may be permitted to transfer between options at the end of semester one with approval from the Division of Lifelong Learning.

3.5 Work Term

Students accepted into Option 1. of the program will complete the work term component during the third semester of the Diploma in Information and Communications Technology program. The dates for starting and finishing the work term are shown in the University Diary. To be eligible for the work term, students must have successfully completed all other courses in the program. Successful completion of the work term requirement is a prerequisite to graduation from the Diploma in Information and Communications Technology.

General management of the work terms is the responsibility of the Division of Lifelong Learning. It is responsible for assisting potential employers to become involved in the program, for the continual development of employment opportunities, for arranging student-employer interviews, for counselling of students, for visiting students on their work assignments and for the evaluation of the work term. Students are also encouraged to seek out suitable work term placements.

Students and employers choose each other through the placement competition process. Employers interview students, and both the students and employers express their preferences. Placement is not guaranteed but every effort is made to ensure that appropriate employment is made available.

Students accepted into the Diploma in Information and Communications Technology, Option 1., give permission to the Division of Lifelong Learning to supply their resumes and transcripts to prospective employers.

Salaries paid to students are determined by employers and are based upon their internal wage structures. However, students should not expect the income from work terms to make them completely self-supporting.

Students may obtain their work term placements outside the competition. Such work terms must be confirmed by the employer, and be approved by the Division of Lifelong Learning before the first day on which the student commences work.

A student may, with the permission of the Division of Lifelong Learning, be self-employed during a work term provided that the student and the Division of Lifelong Learning agree at the start of the work term on the information to be provided to the Division so that it can evaluate the student's work during the term.

A student who is unable to obtain a work term or work in approved self employment within four weeks from the start of the work term will be expected to undertake work under contract to a client within a faculty, another entity of the University, a company, municipality, non-profit organization, or the like. The contract work may be part-time, or occupy only a portion of a semester, and may allow the student to earn an income in other ways. The contract, whether paid or unpaid, must be approved by the Division of Lifelong Learning.

When neither an approved full-time work term nor an approved contract has been obtained, the Committee on Undergraduate Studies may approve a program which provides these students with technical and professional experience expected in the work term. The program must be such that the development, including the development of the students' communication skills, through the program can be monitored and assessed by the Division of Lifelong Learning with criteria equivalent to those used for full-time work term positions.

A work term report must be submitted. This report will be assigned by the Division of Lifelong Learning. Evidence of the student's ability to gather material relating to the job, analyze it effectively and present it in a clear, logical and concise form, will be required in the report. Late reports will not be evaluated, unless prior permission for a late report is given.

The evaluation of the work term is the responsibility of the Division of Lifelong Learning. Two components are considered in work term evaluation: on-the-job performance and the work term report. Each component is evaluated separately.

Evaluation of the work term will result in the assignment of one of the following recommendations:

PASS WITH DISTINCTION: Indicates excellent performance in both the work report and work performance. The student is commended for his/her outstanding performance in each of the required components; pass with distinction has been awarded to each of the work report and work performance.

PASS: Indicates that performance meets expectations in both the work report and work performance. The student fully meets the requirements of a passing work report and completely satisfactory work term performance.

FAIL: Indicates failing performance in the work report and/or work performance.

On-the-job performance is assessed by the Division of Lifelong Learning in conjunction with the employer.

If a student fails to achieve a passing grade from a work term, the student will normally repeat that work term in a work situation approved by the Division of Lifelong Learning. A given work term may be repeated only once during the program.

Students who fail to honour an agreement to work with an employer, or who drop a work term without prior approval of the Division of Lifelong Learning, or who conduct themselves in such a manner as to cause their discharge from the job, will normally be awarded a failed work term.

Permission to drop a work term does not constitute a waiver of diploma requirements, and students who obtained such permission must complete an approved work term in lieu of the one dropped.

3.6 Awarding of Diploma

Once all course requirements have been successfully completed, application for awarding of the Diploma must be made in writing on the appropriate form to the Office of the Registrar, Memorial University of Newfoundland.

3.7 Course Load

Full-time students in semester one will complete 16 credit hours.

Full-time students in semester two will complete 16 credit hours.

Full-time students may register for an additional 3 credit hour course while on the work term.

3.8 Course List

Note: *All courses, unless otherwise noted, consist of laboratory and classroom sessions.*

Courses in the Diploma in Information and Communications Technology program are designated by INFO.

1000 Computer Technology (1 cr. hr.) provides an overview of computer technology and introduces computer basics. Students will become familiar with the basic parts of computer systems and their functions while learning troubleshooting techniques and distinguishing between hardware and software problems. Configuring hardware through the operating system and component failure will be discussed. Understanding of these topics will be enhanced by dismantling and assembling a computer. This course is a prerequisite for all other courses in this program.

2100 Operating Systems I (2 cr. hrs.) is a study of basic operating systems. Features and benefits of the Windows and Unix environments will be discussed in detail.
Prerequisite: INFO 1000
Note: *Credit may not be obtained for INFO 2100 and the former INFO 3111 and INFO 3110.*

2200 Networking Systems I (2 cr. hrs.) is a study of the most commonly used networking systems. Topics include fundamentals of LAN theory; LAN protocols; network topologies; network security; basic network communication options; and network management.
Prerequisite: INFO 2100

2300 Internet Applications (1 cr. hr.) is a study of the Internet and its applications. Topics will include advanced searching techniques, programming languages used in developing applications for the World Wide Web, and creating and maintaining WWW sites.
Prerequisite: INFO 1000

2600 Introduction to Wireless LANs (1 cr. hr.) focuses on the design, planning, implementation, operation, and troubleshooting of Wireless LANs and bridging.
Prerequisite: INFO 2100

3200 Networking Systems II (2 cr. hrs.) is a continuation of the more advanced features of networking systems.
Prerequisite: INFO 2200

3301 Introduction to Programming (2 cr. hrs.) is an introduction to the fundamentals of structured programming. Topics include: algorithms, program structures, software design methodology, language constructs, data file basics, and abstract data types.
Prerequisite: INFO 2100
Note: *Credit cannot be obtained for both INFO 3301 and the former INFO 3300.*

3310 Windows Programming (2 cr. hrs.) is a study of the fundamental elements of programming in a Windows environment. Topics will include: building a Windows Graphical Interface and the introductory concepts of object-oriented programming.
Prerequisite: INFO 3330

3315 Introduction to Databases (1 cr. hr.) is the study of the effective use of databases, including design and implementation, and their use in addressing a business data problem.
Prerequisite: INFO 1000
Note: *Credit cannot be obtained for both INFO 3315 and the former INFO 3400.*

3320 Programming with Databases (2 cr. hrs.) is a study of applications basics, basic data types, understanding objects and collections, coding for events, writing RDBMS, controlling programs, testing and debugging the application, run-time errors, and distributing the application.
Prerequisites: INFO 3310 and INFO 3315

3330 Object Oriented Programming (2 cr. hrs.) is an introduction to object-oriented programming. Topics include: encapsulation, information hiding, inheritance and polymorphism.

Prerequisite: INFO 3301

3350 Introduction to SQL (2 cr. hrs.) provides an overview of data server technology and SQL programming language. Topics include creating and maintaining database objects including storing, retrieving and manipulating data. The course will teach how to write SQL script files to generate report-like output.
Prerequisite: INFO 3315

3360 Relational Database Administration (2 cr. hrs) provides a firm foundation in basic database administrative tasks. The course offers a conceptual understanding of database architecture and how the architectural structures work and interact. Topics include creating an operational database and properly managing its various structures in an effective and efficient manner.
Prerequisite: INFO 3350

3370 Relational Database Forms and Reports (2 cr. hrs) will teach developing and deploying applications using forms and reports. Topics include customizing forms through user input items and controlling data access through the creation of event-related triggers for connectivity to an SQL server.
Prerequisite: INFO 3360

3431 E-commerce and Intranet (2 cr. hrs.) is an examination of the elements that define e-commerce and Intranet applications. Major elements are the concept, design and construction of web-based data applications involved in both commerce transaction processing and internal resource databases.
Prerequisites: INFO 2300
Note: *Credit cannot be obtained for both INFO 3431 and the former INFO 3430.*

3440 Integrated Business Solutions (1 cr. hr.) is an introduction to the techniques involved in analyzing a company's information technology needs, and designing a customized solution.
Prerequisites: INFO 3431

3450 Networking Systems III (3 cr. hrs.) is an advanced study of switching techniques and wide area networks.
Prerequisite: INFO 3200

3460 Network Security (2 cr. hrs) includes an introduction to network security and overall security processes with emphasis on security policy design, installation, configuration, and maintenance.
Prerequisites: INFO 2100 and 2600

4500 Case Study / Student Project (3 cr. hrs.) (restricted to students in Option 2) is a comprehensive analysis of an assigned case. A written report will be required. Skills and knowledge developed throughout the program will be utilized in solving business-related problems. Using a case approach, students will work in teams to evaluate a company's IT resources and prepare a proposal for a solution that will meet the company's needs. A plan will be generated with suitable phases for implementing the solution. Evaluation will be based on effectiveness of the solution, demonstrated understanding of methodology and available technology, and the clarity, conciseness, and logic of the presentation style.
Prerequisite: Successful completion of all other course work, or approval of the Director of the Division of Lifelong Learning, or delegate.

460W Work Term (restricted to students in Option 1) provides opportunities for students in the program to apply theories and skills learned in the classroom to workplace settings. As one component of the work term the student is required to complete a work report which should:
analyze an issue/problem related to the student's work environment
demonstrate an understanding of the structure of a professional report
show competence in written communication and presentation skills.

Prerequisite: Successful completion of all other course work.

4 Personal and Professional Development

The Division of Lifelong Learning offers more than 150 courses/seminars/workshops per semester in general interest and professional development. These offerings are non-credit in nature and there are no formal admission requirements. Program areas include communications, business, computer technologies, languages, marine, writing, the arts, and courses for children and youth. Instructors are drawn from the University and the community and are usually recognized for their achievements in their fields of instruction.

These offerings are an excellent continuing education service. They serve as a valuable introduction to the university setting for persons interested in pursuing diploma or certificate studies. General interest and professional development courses are generally offered on-campus during the Fall, Winter, and Spring semesters.

The Division also administers diploma and certificate programs that are outside of the mandates of other academic units. Certificate programs are short (6 to 10 courses) ranging from being comprised of all degree credit courses to being comprised of all certificate credit courses, or some combination of the two. Certificate programs are offered in business administration, municipal administration, public administration, criminology, Newfoundland studies, library studies, and career development. All of the seven certificate programs are available through distance education.

The Division offers customized corporate education and training to help business, industry, and public sector agencies achieve their business objectives. It works with clients to identify their professional development needs, customize the appropriate training and materials, and deliver and evaluate the seminars and workshops.

Further information on courses or programs administered by the Division of Lifelong Learning may be obtained by contacting the Division in writing to the Division of Lifelong Learning, Memorial University of Newfoundland, St. John's, NL A1C 5S7, or by telephone to (709) 737-7979, or by fax to (709) 737-8486, or by e-mail at lifelong.learning@mun.ca, or through the website at www.mun.ca/lifelonglearning.