INTERNETWORKING PROGRAM HANDBOOK

Prepared by
The Internetworking Program Administrative Office

Working Guidelines for the
Faculty of Engineering Program Leading to
the Degree of

MASTER OF ENGINEERING
Major Subject: Internetworking

APPROVED:

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William Robertson, Academic Director

DALHOUSIE UNIVERSITY
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1 INTRODUCTION TO THE PROGRAM

This document outlines the regulations and modus operandi for the Internetworking (INWK) Program which delivers the professional degree Master of Engineering in Internetworking (MEI) degree program. The intention is that each student and INWK staff member is clear on the reasonable expectations that they might have of each other. A major objective is that this program be the pre-eminent program in North America, if not the world, for Internetworking education at the graduate level. Only cooperation between the students, former students, and the administrative staff of the program will ensure that the necessary good relationships with industry are maintained to ensure our mutual success.

1.1 Program Goals

The goals of the program are to educate and train highly qualified people for the Internetworking Industry. The over-riding goal is to maintain high academic standards, graduate highly motivated ethical practitioners, exceed the norm and retain our outstanding reputation. In deference to these goals we will accept only the highest standards of ethical behavior in order to maintain our standards to the benefit of both the program and our graduates who have worked hard and honestly to attain the MEI degree. (Refer to Sections 4.8 and 5.3.2)

1.2 Program Delivery Model

The MEI program is delivered on an interlaced delivery model to accommodate September and January intakes. Courses will be allocated to 4 week teaching blocks. During the Fall and Winter terms each course will have a 5th week for self-study and examinations. The Summer term courses in 2014 do not have a 5th week for self-study. The period between courses provides students with a time opportunity to independently get up to speed for upcoming course(s).

Classes, tutorials, and laboratory experiments are scheduled from Monday to Saturday and examinations will be scheduled on Fridays or weekends. Each course has a strict pre-requisite and each intake has a strict sequence of courses for that intake. Students who register for any stream other than their own program of study stream will be de-registered by the Program Manager until the appropriate stream students have registered. (See Appendix A for study sequences.)
Please note the Senate has made a new policy on assignment and report submissions which is in a Senate Report which has a link on the following site.
http://www.dal.ca/dept/university_secretariat/academic-integrity.html

1.2.1 Important Program Regulations

Graduate studies at Dalhousie University have well defined requirements. There is no re-examination if a student fails a course. Therefore it is important that students pass each examination of each course at the course’s scheduled examination. All work of a course must be completed within the allocated time period.

Attendance in classes is compulsory and any student who misses 20% or more of classes will automatically be awarded an F grade for the course.

Attendance of 100% is required for all laboratory sessions.

Any laboratory session missed will result in a pro-rated reduction in marks when the laboratory report is graded, whether or not the student participates in a common report with group members.

Laboratory work will have an instructional component, and a self-study component which must be completed by the student in the evenings or on weekends or whenever equipment can be signed out by students. Laboratory work will be subject to an examination which must be passed to pass the course.

1.3 Personnel

1.3.1 Administrators

A210 Bill Robertson, Ph.D., Academic Director, bill.robertson@dal.ca, 902-494-2702
A208 Shelley Caines, M.B.A., Program Manager, shelley.caines@dal.ca, 902-494-1114
A200 Lauren Dalrymple, B.A., Office Assistant, lauren.dalrymple@dal.ca, 902-494-2053

1.3.2 Instructors

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1.3.4  Technical Training Lead

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1.3.5  Tutorial Instructors

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Fazili, Yashar, M.Sc.  ali.hamidi@dal.ca  Tel: 902-494-2080

1.4  Program Facilities

1.4.1  Location of Classrooms and Laboratories

The classrooms/laboratories are located on the Sexton Campus. All lectures and laboratory experiments will be held at this location in these rooms: A201, A222, B226

When the rooms are not in use by the program for classes and laboratories, or for maintenance, they are available as study areas for INWK students. A222 serves as the student self-training area.

No drinks are allowed near the computer desks in A201/A222 - ever.
1.5 Access Hours

1.5.1 INWK Office Hours

The INWK offices are located in the A wing of the Sexton Campus and are open for business daily from Monday 9AM to Friday noon (excluding regulatory holidays and, at times, unavoidable closures) and students may visit at the posted office hours on the individual doors of staff. In particular, students may visit the Office Assistant and Technical Support at any time, and the Program Manager between 11am and 12 noon, and 2pm and 3pm Monday to Thursday or otherwise by appointment. Should a staff member be away from his/her office students should contact the staff member by email. There is a board on the door opposite the Program Academic Director’s office which indicates when a staff member expects to be in the office.

If your matter is urgent it is best to email the staff member and schedule an appointment.

1.5.2 Laboratory and Classroom Hours

The Classrooms/Laboratories are available to students between 7:30am and 11:00 pm.

1.5.3 Laboratory and Classroom Alarm System

The rooms are on an automatic alarm system which is scheduled to set at midnight. If students are in the laboratory or classroom when the system sets an alarm bell will be triggered and security will come to secure the site.

1.5.4 Sexton Campus Hours

The Sexton Campus is closed between midnight and 7:00 am daily. If students are encountered by Security during those hours they will be asked to leave unless they can provide proof of special permission to be on campus. The INWK Program does not support students being on campus between 12 midnight and 7am or during university holidays so no special permits will be available. The campus is closed over the Christmas break and only remote access will be available.

1.6 Use of the INWK Facility

1.6.1 INWK Access Cards

Everyone must have a Dalhousie University student ID card. The Dalhousie University student ID card will also act as an access card to enter INWK facilities. Only-registered card-holders are permitted in the INWK facility. Others must be granted access by the Program Manager. No Dalhousie student registered in another program is permitted in the INWK facility unless involved in INWK research with an INWK instructor.
1.7 Sexton Campus Facilities

1.7.1 Sexton Campus Lounge Area

The Alumni Lounge is on the main floor of B wing and may be used by students for breaks and lunches.

1.7.2 Sexton Campus Library

The library is on the 3rd floor, one floor up from the INWK Offices.

1.7.3 Campus Computer Laboratories

Sexton Campus has 4 computer laboratories that are available to all Dalhousie University registered students. They are located in rooms B316, C300, C318 and the alcove outside the Sexton Library. For usage guidelines and hours of operation please visit: www.dal.ca/dept/its/its-services.html

1.8 The Program

1.8.1 Graduate Level

This is a Master level degree program. The primary objective is the education of the students and the secondary objective is to provide the students with the opportunity to self-train.

1.8.2 Our Expectation of Students

Students in this program are expected to work independently, and to use their own initiative and time management to complete the work of each course. The development of individual initiative is important; therefore students are expected to work independently without supervision. Students are expected to be prepared for classes and laboratory experiments through pre-preparation of relevant material. Students are expected to act professionally at all times.

1.8.3 Student Pre-qualifications

A Cumulative Grade Point Average (CGPA) of 3.0 or better; a CGPA of 2.7 or better with a minimum of 2 years relevant industrial experience may be considered in some circumstances as determined by the Academic Director.
1.8.3.1 Computer Literacy

All students are expected to have demonstrable computer literacy skills. e.g.: use of word processors, use of spreadsheets, use of e-mail, use of web based utilities. All students are expected to be fully proficient within one month of first registration.

1.8.3.2 Programming Skills

Programming ability is required and Data Structures and C/C++ are pre-requisites.

1.8.3.3 Mathematics

A refresher course in probability and statistics is advisable for every student who did not do such a course within the three years prior to their entry date into the MEI program. All students must be proficient in Fourier Transforms, Integration and Differentiation.

1.8.4 Intensity of Academic Classes

Students can expect to have to work extensively outside course hours and days to attain the minimum required effort of 180 hours per course for an average student.

Students are advised that full-time study in this program does not mesh well with part-time employment. Given the cost and the study load, students are advised that part-time work is not recommended and that attendance is mandatory as specified above in order to pass a course.

1.9 Seminar

Each student is required to register for and complete a seminar on a technical research topic. Attendance at all seminar sessions is compulsory and failure to attend any seminar scheduled time (whether presenting or not may result in an F grade.)

On pre-set dates each student must:

i) Provide an abstract for approval
ii) Provide intermediate results based on the student’s own research contribution
iii) Present their own contribution results in a 5 min session
iv) Provide a seminar report plus power point slides, and
iv) Make a presentation at a Seminar Conference.

The seminar report must use the format provided, must use references correctly, must reference any material extracted from any source e.g. for figures or quotes, and must be written professionally in acceptable English. Students may make use of the Dalhousie Writing Centre’s services. Reports must be submitted in final form to the OWL system.
plagiarism tester in the term of registration for the seminar presentation. A maximum of 10% of similarity will be tolerated.

A student must meet all the seminar requirements to receive a P in the term of seminar registration. Students are normally required to present and complete the seminar in their last semester. *Note that an F in a seminar is considered an F in a course for the purposes of Academic Standing.*

1.10 Student "To Do" List

1.10.1 Program Profile Form

Each enrolled student must complete a program profile form provided in the orientation package and confirmation form. Return them to the INWK office.

1.10.2 Computer Accounts

Each registered student must have a computer account at Dalhousie and must provide the INWK Office with his/her Dalhousie e-mail address using the format William Robertson <billr@dal.ca>.

You should visit [www.dal.ca/dept/its.html](http://www.dal.ca/dept/its.html) for detailed instructions on how to activate your “@dal.ca” account. Please change your email name to: better identify yourself. Each student also requires an INWK Laboratory Network username and password. A default password will be provided and each student must change to a private password.

1.10.3 INWK Placement Permission Agreement

If any job opportunities are advertised through the INWK office any student who wishes to apply must complete a Release of Information Agreement.

1.11 Summary of "To Do's"

1.11.1 Summary of Registration "To Do's" at Dalhousie University

- Register for courses
- All students are required to register for all courses by the posted deadline in a given term in accordance with university registration deadlines. *Late registration is not possible under the new program structure.*

Payment for courses is due the first day of each class. If payment is not made by the first day of class, students will be charged a late fee. Under
Dalhousie University regulations: students who are not in good financial standing will not be permitted to attend classes. Course registration must be done on the web at www.dal.ca/online within academic deadlines. Note there are also student fees to be paid when registering for the first course in each term.

- Obtain Dalhousie student ID card (required to access the on campus facilities and services)
- Read, sign, and return the program form
- Sign and return the confirmation form
- Advise the INWK office of any alternate e-mail address
- Obtain INWK Laboratory network usernames and passwords (in addition to Dalhousie University usernames and accounts)

1.12 Self-Training

1.12.1 Self-training Equipment

Access to INWK self-training equipment in A222 and at times in the Equipment Room, on an availability basis, is a privilege granted to enrolled students. Any equipment made available to students must be “signed out” at specific time slots. The equipment in A222 may be self-wired by the students. Other fixed wiring pods in the Equipment Room may from time to time be made available for sign out and remote access outside class use for self-training purposes.

A student may only sign out 2 slots and may not sign out another slot until after the second slot has started. If a slot is unused by the signee after 25% of the slot duration has passed another person may use it.

The equipment in A222 is only for self-training outside designated class/laboratory hours scheduled in A222. If pre-configured the equipment can be accessed remotely at any time.
2 EXTERNAL COMPANY RELATIONSHIPS

Industrial relationships are important to the program. These relationships include:

- Sponsorship
- Financial and in-kind support
- Scholarships
- Career opportunities
- Feedback on student performance in the workplace
- Feedback on industry directions
- Suggestions on content

The importance of class members projecting both enthusiasm and a professional attitude to industrial representatives simply cannot be over-emphasized.

2.1 Financial and In-Kind Support

The program counts on support from industry. Such support is varied and ranges from direct financial contributions through deep discounts to outright donations of equipment.

2.2 Scholarships

If the program is successful in obtaining industrial scholarship support, the guidelines will be the same for in-program scholarships.

A student may receive only one INWK sponsored scholarship. Only self-funded students are eligible for consideration.

2.3 Career Opportunities

The INWK program works diligently with external companies to identify career opportunities for the students. External relationships with companies are vital to the success of the program; therefore, the program will only perform this function if fully supported by the student body. For example, low turn-outs for company presentations do not help in building good relationships with companies.
It is expected that students will:

- Complete the “student release of information” form if applying to a company with the help of the INWK program or using the INWK program instructors as a reference.
- Come to presentations by external companies whether or not they are personally interested in a position with a particular company or have already accepted a position
- Advise the administrative office as soon as they accept a position

In return the administrative office will encourage prospective hiring companies to advertise positions through the INWK Offices. Any leads provided to the program will be pursued. In any event, students are ultimately responsible for finding their own positions in industry.

2.4 Feedback on Student Performance in the Workplace

The administrative office follows up on students as much as it can. This is done through site visits and through e-mail and telephone contacts. Information received in the past has indicated that:

- The technical strength of our students is taken as a given
- The performance and work ethic of our students in the workplace has been exceptional
- “Soft skills” are important and require continual work:
  - In particular:
    - Some students need more practice in spoken English including their ability to discuss and express issues in English
    - Some students need more practice in report writing including spelling, grammar, report structure, and in judgment on use of related material.
    - Team-work skills are good for the most part

The emphasis placed by companies on the "soft skills" is a stumbling block for some of our students. As a result we:
• Require that both students and staff speak English at all times while in the INWK facilities
• Encourage students to take English lessons and to watch North American TV to improve their colloquial English skills
• Require use of the program report format for reports
• Assign random groups for laboratory work at our discretion

2.5 Feedback on Industry Directions

Feedback is solicited from everyone with whom the INWK Administrative Office is in touch and who hires a student. In addition feedback from former students is encouraged. Tracking changes in technology and its application in industry is vital for the program to remain at the forefront of education in the Internetworking area. This in turn will ensure the good reputation of both the program and the select group of people who pass this way.

2.6 Suggestions on Content

Academic content simply cannot follow the needs of a particular industry. However, this program is unique in that both the hands-on portion of the academic program and the self-training provides an opportunity to add material. As a result many of the suggestions coming from hiring managers and former students can find a place in the overall strategy of the INWK program.

2.7 Summary

Industrial relations are important to the program and to the students. The Administrative Office will do its utmost to address all the factors outlined in this chapter. The program's future interaction with companies depends on the participation of the program administrators, the current class, and former students.
3 PROGRAM LABORATORY FACILITIES

The INWK Program facilities are located on the Sexton Campus. These facilities are for the use of the MEI graduate program and the research of staff members. The INWK Program aims to keep laboratory experiment enrollments around 30 students.

3.1 Internetworking Equipment Room and PCs

3.1.1 Program Equipment Restrictions

Students are not permitted to:

- change pre-configured wiring on,
- install their own servers on,
- install money making software on,
- develop money making applications on,
- be an administrator of,
- make non-academic use of

any Dalhousie University Internetworking Program computers and/or equipment unless being advised to the contrary.

3.2 INWK Computer Usage

The only secure location provided for student documents is the personal P: drive.

3.2.1 Username and Personal Drive P:

The Windows machines on the INWK premises use a Domain logon to access the computers and network resources. This means that a central server holds all of the username-password sets to allow a user to logon from any machine on that domain. A UserID is associated with a logon username and this ID identifies what a user may and may not access.

Each user has a P: drive that will hold his/her documents. This drive has a limit of 2 GB and files can only be accessed by entering an accurate username and password. This file space is backed up, at 3:00 AM, Tuesday – Friday and Sunday. This is the only dedicated space that a student has that is secured and backed up. Any other
space, Laboratory PCs and the Shared space, can be deleted by the Instructors or Laboratory administrators at any time without notice.

Laboratory PC’s have multiple USB ports.

3.2.2 INWK Computers

The computers of the INWK facility are for the use of the current classes. These machines can be re-imaged at any time. When a computer is re-imaged, the entire contents of the drive is over-written by a default image which includes the Operating System and necessary programs for a specific course. This is not always Windows. Do not save personal files on the laboratory PCs as data can be lost without warning.

3.2.3 Roaming Profile

In order to save a user’s preferences, desktop layout; shortcuts; security settings; browser history and favorites; application settings; etc., Windows keeps each users “Profile” under the folder “C:\Documents and Settings\%username%”. When first logging on to the domain, Windows copies these settings from a default profile. Any changes made are copied to the folder “C:\Documents and Settings\%username%”.

When logging out this profile is copied to the user’s personal network drive space, which shows up on Windows machine as the P: drive. Due to the impact on the length of time it takes to logon this profile must be limited in size. The limit is 10 MB.

Network P: drive has an upper limit of 2GB, this includes the profile. When the Profile get bigger the copying back time of the profile to the P: drive takes more time and make the performance slower. This problem may be fixed by copying files from the profile, desktop or under My Documents, over to the P: drive. To delete files from Profile go to “C:\Documents and Settings\%username%”. Where %username% is your logon username.

If logon is getting slow, check the profile. A large amount of small files, Internet Explorer History and Cache being a known offender, will severely degrade logon and logout time.

Students are encouraged to save their documents to their P: drive, and not to the desktop. Having documents on the Desktop directly affects the Roaming Profile’s ability to quickly upload at logout and download at login since more data must be transferred at these times. By saving files directly to the P: drive, the mass transfer of these documents at login and logout is removed. This also protects the users’ documents by reducing the chance of data corruption from the downloading and uploading every time a login and logout occurs.

3.2.4 The INWK Shared Space

The INWK shared space is for the Instructors and Laboratory administrators to provide the students access to programs and documents required for the current
class. This space does have a limit on it so if there is not enough space for the materials non-essential files will be deleted. The space has been opened up with write access to the students so that they may share files if desired, in between classes, as long as it does not interfere with the requirements of the current or next class. Do not store personal files on the shared drive at any time, as they may be deleted without warning.

3.2.5 FTP Access

If a student wishes to have outside access to their files, this may be provided by asking one of the administrative staff. A different password will be provided that will allow access only to the user’s P: drive. The Shared space is not accessible.

3.2.6 Personal Laptops

Personal laptops are permitted on the premises. Do not leave a laptop unattended. Dalhousie University provides WiFi access to all students. The P: drive will be accessible either by FTP or mounting it using the username password pair used on the INWK workstations and using `\129.173.143.50\%username\` as the url. It has been discovered that if there is trouble connecting to the printer, connect to the P: drive first and then access the printer.

3.2.7 Access to the Router/Switch Pods on Laboratory days

During classes an enrolled student may only sign out the pods allocated to his/her group during specified hours of a laboratory experiment in order to complete laboratory experiments. One day on the weekend is normally available to each laboratory group for use of their assigned laboratory pods.

Between the hours of 9am and 5pm students must check with Laboratory Instructor, Shahzad Minhas, to ensure particular equipment they require has not been reallocated to another group in another class. When A222 is free a student may ask one of the lead laboratory instructors for an unused pod in order to complete any experiment.

3.2.8 Access to the Router/Switch Pods for self-training

Pods can be accessed when there are no classes and no maintenance in progress. Pods of equipment must be signed out before they are used (Sec.1.12.1).

The web page at inwk01.inwk.dal.ca provides urls to the equipment and documentation such as setup and usage rules. Please do not put any passwords on the routers/switches other than inwk or inwk1.

Any questions or concerns regarding equipment usage should be directed to the Program Manager.
3.3 Printers

There is a printer installed for student use. This printer is not designed for high volume printing. It is to support academic work to permit reports to be printed locally rather than through the central university facilities. The program relies upon common sense and fairness to ensure that the printer is used in a reasonable manner. Laboratory Instructors will monitor usage and advise the Program Manager if quotas become necessary. Paper is supplied for reasonable usage.

Neither copyrighted material nor on-line books are to be printed on the INWK printers.

3.4 Facility Usage Guidelines

3.4.1 The Laboratory/Classroom

Absolutely no liquid including drinks are permitted in the vicinity of INWK computers and equipment at any time. Any violation of this no liquids rule is likely to result in access being permitted only when staff is on the premises. Please keep the facility tidy at all times.

3.4.1.1 Use for Non-academic Training

Use of the facility for non-academic training is a privilege, not a right and any inappropriate activities or lack of respect for other users may result in loss of access for non-academic training.

Students may reserve access to designated equipment provided for training (Sec. 1.12.1). Only Program Staff may change the wiring configuration in the Equipment Room. No personal data is to be stored on any laboratory computer or shared space.

3.5 Summary

Access to the facility for training is a privilege granted to students to enable them to implement their own training programs. Such access is based on availability and appropriate usage.
4 PROGRAM WORKING RULES

The Internetworking Program operates under the following guidelines.

4.1 Class Representative

Each intake should have a representative (class representative.) During the first term of each intake the class is to provide the name of its representative to the Program Manager. The representative will normally be the sole point of contact with the Administrative Office on all class issues and concerns.

4.2 Courses

There are ten courses and a research seminar; each course is a one half 5 hour credit course. In accordance with the requirements of the University, each student must register in each course in the prescribed sequence. Each course typically has class hours, tutorial hours, laboratory hours and 1 or 2 theoretical examination days and one practical examination day spread out over the allocated period with 4 contact days a week plus extra time (evenings and weekends) allocated for additional laboratories, tutorials and examinations. The Project Course is not required for graduation and is not offered.

4.2.1 Registration Times

Students must:

- Register on line at www.dal.ca/online
- Register for all courses in any one term by the registration deadline for that term
- Pay for each course no later than the first day of each course
- Be in good academic and financial standing at the end of each term in order to proceed to the next term in the program

4.2.2 Course Sequence

Each student has a prescribed course sequence which is designed to cover the program in a 5 term sequence. The recommended time to take 10 courses and complete the seminar requirement is 5 semesters.
4.2.3 Withdrawal from courses

The last day for withdrawal, with or without penalty, from an INWK course is (approximately) during the first one-third of a class’s allocated block, check the Registrar’s web site for the exact timing. After this time academic and financial penalties will be levied. Exact dates are posted on the University web site.

4.2.4 Course Pre-requisites

Each course in the program must be completed in the prescribed sequence of study (Appendix A). To progress to the next course in sequence an adequate grade must be attained (4.6.3). Therefore, any student who fails a course will have the severity of the failing grade assessed by the Director/Academic Director to determine eligibility to take the subsequent course. A student who withdraws from a course will not be able to take the following courses unless evidence of sufficient knowledge is provided.

4.3 Classes

4.3.1 Class Procedures and attendance

Each instructor will provide a clear class delivery (or work) schedule and an assessment scheme on the first day of class. For each class random assignment of students to laboratory groups is made at the beginning of the course. This is necessary to ensure all students are prepared for a diverse workforce. Examinations will be held at a time and location advised in advance. Class attendance is compulsory, whether or not an instructor indicates this, and the only acceptable reasons for absence are an emergency situation or a medical condition, and a student who misses 6 or more hours of classes will automatically be awarded an F grade. Any student who cannot come to class must call the Administrative Office and email the instructor before the class time. No deviation from this regulation will be allowed unless supported by an acceptable medical certificate. (Working at a job is not considered to be an acceptable reason to miss classes.)

The language of instruction is English and all students, support staff and instructors are requested to converse in English at all times.

4.3.2 Classroom Location

All classes will be held at the Internetworking facility (See Section 1) unless otherwise advised.
4.4 Laboratory experiments and procedures

Laboratory attendance and completion of work are mandatory. Students are required to attend promptly at the start time posted for a laboratory. Marks will be deducted from the final report for late arrival.

The objective of a laboratory is to learn how to configure the equipment during an instructor led segment and to complete the laboratory experiment and troubleshooting on your own. Reports must be written after completion of the experiments outside of regular moderated laboratory sessions. Evening sessions are to be used for self-completion of assigned laboratory experiments/exercises and troubleshooting. *Marks will be awarded for self work rather than instructor led configuration work. Laboratory work is examinable and a pass in any laboratory examination is required to pass a course.*

Laboratory reports must be submitted prior to the start of the subsequent laboratory. All reports must be submitted to the Blackboard Learning System for checking of correct use of material and references. In group reports each student must identify his/her contribution to the report.

There will generally be one written examination specifically for the laboratory work of a course.

During laboratory experiments world-wide-web usage is restricted to sites indicated by the laboratory instructor (this means no social networking, no news, no sports, and no general browsing is permitted.)

4.5 Personal & Academic Problems

4.5.1.1 Academic Problems

First Level:

- Any problems with any facilities should first be discussed between the class representative and the responsible person, and such discussion reported to the Program Manager.
- Any problems with anything in any specific class (course) must first be discussed with the instructor.
Second Level:

- Failing resolution at the first level the class representative should bring non-academic problems to the attention of the Program Manager and academic problems to the attention of the Academic Director.

4.5.1.2 Personal Problems

Personal problems may be discussed with the Program Manager or the Academic Director or a University appointed advisor. Any personal issue which may affect a student’s performance must be reported to the instructor and the Office before the issue affects the student in mid-terms and/or examinations. Supporting documentation must be provided.

4.6 Written Reports

4.6.1 Formal Reports

All formal reports prepared during academic courses must make use of the appropriate report format. The files may be downloaded from the ftp site 129.173.24.34 by signing on as user “template” and password “template”. All reports are to be subjected to a plagiarism detection test.

4.6.2 Seminar Report

Use the Formal Report template.

4.7 Personal Interest, Special Interest Groups & Religion

The program is organized around the premise that the schedule posted by the University and augmented by the Program is in force. This schedule and common practice in Canada means that we cannot accommodate special interest groups or religious holidays (other than those prescribed by Canadian law). Although respectful of religious beliefs, due to the condensed nature of the program, it is not possible to either cancel classes and laboratories, or to schedule quizzes, tests or examinations for religious observances, personal interest reasons, or special interest group reasons. This should in no way prevent a student from observing his or her beliefs.

Individual instructors may, or may not, choose to build their schedules around requests from class members; however, this is left to the individual instructor, and is on the understanding that students who miss classes or laboratories are responsible for catching up on any work or class material they miss. Quizzes and tests will be scheduled by the instructor. Examinations will be scheduled by the Administrative Office in consultation with the instructor.
4.8 Examination and Test/Quiz Regulations

INWK Program Rules for all examinations and tests/quizzes follow University regulations:

i) Students must display their Dalhousie ID card on the desk throughout any examination or quiz or test.

ii) Students cannot leave the room in the first 30 minutes nor in the last 15 minutes of the examination/test/quiz.

iii) Students are not permitted to share calculators or any other resources. (This means if you come without a calculator, or eraser etc., you have placed yourself at a disadvantage, and that is your choice and you have to live with it.)

iv) Students are only allowed to go to the washroom one at a time and must therefore ask permission and an invigilator must take note of their coming and going and follow up as required.

v) No student bag is allowed at the candidate's seat

vi) Students must wait in their seats until all examinations are collected and tallied.

vii) No cell phones are permitted either at the desk or when a student goes to the washroom.

viii) A student who leaves the examination early must hand his/her the examination material to the senior invigilator.

4.9 Grades

4.9.1 Grading Policy

Dalhousie University has a letter grade scheme. Students will not be provided with percentage grades nor will an instructor discuss conversion of numeric grades to letter grades. Letter to numeric grade conversion is done by a standard scale that is published in the University calendar.

Students must achieve a minimum, or passing, grade of (B-) in each class. Any lower grade will be recorded as a failure (F). Students are allowed to carry one failing grade. However, no credit will be granted for the failing grade and the class must be repeated and a B- or better obtained. Failure of a second class results in immediate academic dismissal. An academically dismissed student may apply for reinstatement in accordance with the University regulations.
4.9.2 F Grade

Students who get an F grade in a course will have to enroll in their own stream in the following year for the failed course unless there is space in the alternate stream. However, students may not register in an alternate stream course until all eligible students of the alternate stream have already registered. If an F student does register in an alternate stream before all the eligible students are registered then the Program Manager will de-register that student.

4.9.3 Adequate Grade

Where circumstances require that an adequate grade decision (4.2.3) be made, it will be made by the Academic Director. Students who do not meet an adequate grade for their prescribed program of study will not be permitted to take dependent courses.

4.9.4 Providing Grades

In accordance with University policy, grades are not permitted to be posted in a Unit. INWK program students may view their grades on the University web after the grades have been entered.

4.10 Copyright Laws

Copyright laws may not be broken on University premises or using University equipment. In particular no photocopying of copyright material or printing of copyright material may be done using the resources of the INWK program in any way that violates the copyright agreements followed by the University.

Copies of text books are not permitted in the INWK facilities.

4.11 Cheating & Plagiarism

The INWK Program has a zero tolerance policy. The Academic Director will take active and forceful steps to have the fullest extent of the University regulations brought to bear on anyone who is involved in such activities. In particular any material either prepared or submitted by previous students and presented by a current student is considered to be plagiarism. Laboratory instructors are required to bring any transgression to the attention of the Academic Director.

Please note the Senate has made a new policy on assignment and report submissions.
5 GENERAL INFORMATION

This chapter contains non-program specific information for students and must be corroborated on the Dalhousie University Web Site. The following is based on the Dalhousie University Graduate Studies Calendar. The University Graduate Regulations are on line at www.dal.ca/faculty/gradstudies.html and take precedence over any information in this chapter. You are encouraged to review the calendar for further university rules and regulations. The University calendar contains additional information that provides the student with guidance and/or direction on many questions and/or concerns.

5.1 Medical Health Plan

5.1.1 Canadian & International Students

All full time Dalhousie students may be covered by the Dalhousie Student Union Health Care Plan. Please refer to the following website for complete and accurate information: https://www.studentvip.ca/dsu/

5.1.2 International Students

As an international student at Dalhousie University, you are automatically billed and enrolled for the DSU International Students Health Plan. This plan provides coverage for doctor and hospital visits should you need medical attention while in the province of Nova Scotia. Please refer to the following website for complete and accurate details: https://www.studentvip.ca/dsu/health_and_dental/health/international.php

If you already have private insurance coverage for doctor, hospital and medical services or carry MSI you may be eligible to opt out (cancel) the DSU International Students Health Plan. Please refer to the following website for complete and accurate information: https://www.studentvip.ca/dsu/health_and_dental/health/International/optout.php

5.2 Student Accounts

All fee issues and payments are handled by the Student Accounts Office. The Student Accounts Office has rules and regulations that must be followed and the INWK Office does not have authority to change or make exceptions to these rules. We strongly recommend that you review their website so you are familiar with the consequences of a delinquent account.

https://www.dal.ca/admissions/money_matters.html
5.3 Ethical Issues and Regulations

5.3.1 Official Examination Regulations

Candidates will not be admitted to the Examination Room more than thirty minutes after the beginning of the examination. Candidates will not be permitted to leave the examination within the first thirty minutes. Candidates are required to present their valid Dalhousie ID card at all examinations scheduled during the official examination periods and sign the signature list when used. No articles such as books and papers may be taken into the examination room unless provisions have been made by the examiner for reference books and materials to be allowed to the students. All books and papers not specified on the printed paper must be deposited with the invigilator. Calculators may be used at the discretion of the instructor. Candidates may not leave their seats during an examination except with the consent of the invigilator.

Answers to questions must be written on the right hand pages and properly numbered. The left hand pages may be used for rough work, but no sheets may be detached. Each question should be started on a separate page. If more than one book is used, the total number should be marked in the space provided above. The other books should be properly marked and placed inside the first book. All books supplied must be returned to the invigilator. Students will write their answers on the examination paper if no examination booklet is provided.

Candidates found communicating with one another in any way or under any pretext whatsoever, or having unauthorized books or papers in their possession, even if their use be not proved, shall be subject to expulsion. As an interpretation of Rule 8, the invigilators of INWK tests and quizzes will ask any person who appears to be glancing or looking at neighbouring students' papers to leave the room.

After the first thirty minutes have elapsed, students may hand in their examination book(s) to an invigilator and quietly leave the examination room. Candidates may not leave the examination room during the last fifteen minutes of the examination.

5.3.2 Plagiarism or Self-Plagiarism

Dalhousie University defines plagiarism as the presentation of the work of another author in such a way as to give one's reader reason to think it to be one's own. Plagiarism is a form of academic fraud.

Plagiarism is considered a serious academic offence which may lead to either loss of credit, suspension or expulsion from the University, or even the revocation of a degree. In its grossest form plagiarism includes the use of a paper purchased from a commercial research corporation, or prepared by any person other than the individual claiming to be the author.
Self-plagiarism is the submission of work by a person which is the same or substantially the same as work for which he or she has already received academic credit.

The University attaches great importance to the contribution of original thought to scholarship. It attaches equal importance to the correct attribution of authorities from which facts and opinions have been derived.

The proper use of footnotes and other methods of attribution vary from discipline to discipline. Failure to abide by the attribution standards of the discipline concerned in the preparation of essays, term papers and dissertations or theses may, in some cases, constitute plagiarism.

Students who are in any doubt about the proper forms of citation and attribution of authorities and sources should discuss the matter in advance with the faculty members for whom they are preparing assignments. Students may also use the free services of University Writing Centre to improve their writing skills and learn about citations [http://www.dal.ca/campus_life/student_services/academic-support/writing-and-study-skills.html](http://www.dal.ca/campus_life/student_services/academic-support/writing-and-study-skills.html).

In many academic departments, written statements on matters of this kind are made available as a matter of routine or can be obtained on request. [INWK students should refer to the report template provided by the program.]

In addition to the definitions above students of the internetworking program must use their own words when writing reports rather than refer to, or extract, extensive material from text books and web sites or other material.

Additional information on Plagiarism and Intellectual Honesty is available on the online Graduate Studies Calendar under University Regulations, [http://registrar.dal.ca/calendar/calendarpdfs/GR20122013Calendar.pdf](http://registrar.dal.ca/calendar/calendarpdfs/GR20122013Calendar.pdf).

### 5.4 Computer Facilities

The Faculty of Engineering provides computer stations which may be used by any registered student. They are located in rooms B316, C300, C318 and the alcove outside the Sexton Library. For usage guidelines and hours of operation please visit: [http://its.dal.ca/services/computer_services/labs/lab_guidelines.html](http://its.dal.ca/services/computer_services/labs/lab_guidelines.html)

### 5.5 Summary

Students are advised that the Internetworking Program has a zero tolerance level for cheating and plagiarism, including use of previous students' reports and laboratory results. Any infringements of acceptable standards should be reported to the Academic Director. Students who complete this program are required to meet the academic standards, and are
expected to exhibit high ethical and professional standards. The standards expected are those generally expected of professional persons such as Engineers and IT professionals.
# APPENDIX A: PROGRAM COURSE SEQUENCE

## 6.1 Course Flow

![](chart.png)

- **Study Week:** No classes or Labs or Tutorials.
- **Lab and theory Exams this week.**
- **Course and Labs and Tuts Teaching Blocks (4 Weeks)**
- **Student 5 week course Delivery Blocks**

<table>
<thead>
<tr>
<th>Approx Month</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
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<tr>
<td>Sep'14 1st Year</td>
<td>Intro</td>
<td>math</td>
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<tr>
<td>Sep'13 2nd Year</td>
<td>Prog</td>
<td>arch***</td>
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<tr>
<td>Jan'14 2nd yr</td>
<td>telecomms</td>
<td>Prog</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Fall courses**
- Sep'14 1st Year: Intro, math
- Sep'13 2nd Year: Prog, arch
- Jan'15 1st Yr: arch
- Jan'14 2nd yr: telecomms

**Winter courses**
- Jan'15 1st Yr: math
- Jan'14 2nd yr: math

**Summer courses**
- Sep'14 1st Year: telecomms
- Sep'13 2nd Year: telecomms
- Jan'15 1st Yr: telecomms
- Jan'14 2nd yr: telecomms
6.2 Program of study
The courses are presented in the above order for the September and the January intake programs of study respectively. A student who first enrolls in September must stay in a September stream throughout his/her studies unless special permission is given to switch. A student who first enrolls in January must stay in a January stream throughout his/her studies unless special permission is given to switch.

6.3 Pre-requisites
The order of the courses as shown above and the pre-requisites are shown on the INWK Program web site.

Only Real-Time (RTOS) may be taken out of sequence. The pre-requisite for RTOS is C++ and Data Structures.