



School of Science and Engineering Technology 2014-2015

Biomedical Engineering Technology
Electronics Engineering Technician
Electronics Engineering Technology
Electro-Mechanical Engineering Technology

Includes Fast Track

Includes Fast Track

PROGRAM GUIDE

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Please note the following important information:

Durham College strives to ensure the accuracy of the information in this publication. Please note that the academic curriculum is continually reviewed and revised to ensure program quality and relevancy. As such, the college reserves the right to modify or cancel any course, program, fee, procedure, timetable or campus location at any time. Please consult our website at <http://www.durhamcollege.ca> for the most current information. June 2014

WELCOME STUDENTS

A Message from the Dean and Vice President, Academic

Thank you for choosing Durham College's School of Science and Engineering Technology to further your education. It is a great pleasure for the faculty and staff to guide and assist you in reaching your goals. The purpose of this Program Guide is to provide you with information relating to **all areas** of the college, including important dates and deadlines, all services offered to students to assist in both academic life and life in general.

Your chosen program has been designed to provide you with the theoretical and hands on experience which will enhance and enrich your resume. Durham College provides a great many services for students so please do not hesitate to take advantage of them. Your professors are all dedicated professionals chosen for their knowledge and excellence in your field of study. They will be more than happy to share this knowledge and guide you along your journey.

The School of Science and Engineering Technology takes pride in our mission to encourage a progressive, motivating and experiential learning environment which produces exceptional graduates who exceed employer and industry standards. We welcome you and wish you every success!



Susan Todd, Dean

Congratulations on choosing Durham College and taking a very important step in preparing for your future. Durham College is known for high quality programs, leading edge technology, an award winning library and a student-centered approach to learning. Supporting our mission that the student experience comes first, Durham College is committed to providing students with quality learning experiences and support in finding fulfillment in education, employment and lifelong learning.

Our programs are continually shaped by market needs and delivered by exceptional teachers with real-world experience. The program you have chosen has been designed to help you develop the necessary skills and knowledge to support your success in your chosen career path. Our dedicated and professional staff and professors are committed to helping you achieve your educational goals and your career aspirations.

Durham College strives to be accountable to students and employers through the preparation of work-ready graduates who will continue to live our "success matters" focus in their professional work environment.

We are pleased you have chosen to study at Durham College and we look forward to supporting your learning journey – work hard, have fun, enjoy your college experience and campus life.

I wish you much success with your studies.



Judy Robinson,
Vice President, Academic

SCHOOL OF SCIENCE AND ENGINEERING TECHNOLOGY

Contact Information Oshawa/Whitby Campus – Fall 2014

| Administration/ Support Staff Name | Office # | Phone Voice Ext. Voice Mail | E-mail Addresses | Position |
|--|--------------------------------|--|--|--|
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| Calhoun, Maureen (A) | H140D Osh 117A Whitby | 2168 2168 | maureen.calhoun@durhamcollege.ca | Associate Dean |
| Head, Jenni-Lynn (S) | H140 | 3060 3060 | Jenni-lynn.head@durhamcollege.ca | Administrative Assistant |
| Dillon, Linda (S) | H140E | 2545 2545 | linda.dillon@durhamcollege.ca | Administrative Coordinator |
| Green, Maureen (S) | H140A Osh Rm. 117 Whitby | 2383 2383 | maureen.green@durhamcollege.ca | Student Advisor/Admin. Support |
| Knihnisky, Steve (S) | H230B | 2378 2378 | steve.knihnisky@durhamcollege.ca | IMC Technician |
| Mackay, Dave (S) | H220 | 2767 2767 | dave.mackay@durhamcollege.ca | Electronics Technologist |
| Myers, Jeff (S) | H166D | 2385 2385 | jeff.myers@durhamcollege.ca | Mechanical Technologist |
| Oberg, Stacey (S) | A210 | 2210 22101 | stacey.oberg@durhamcollege.ca | Science Lab Technologist, Oshawa Campus |
| Rigby, Terry (S) | 22-28 Whitby | 4203 4203 | terrence.rigby@durhamcollege.ca | Field Laboratory Technologist |
| Thompson, Craig (S) | A210 | 2210 22102 | craig.thompson@durhamcollege.ca | Science Lab Technologist |

Field Placement

Field training provides valuable experience in the workplace. When on field placement, students must realize that their behaviour reflects upon the entire student body and the image of the college. Students are expected to act in a professional manner. This includes punctuality and regular attendance. It is **strongly recommended** that students do not carry any outstanding courses in third year to ensure that they meet field placement pre-requisite requirements and graduation deadlines.

Evaluation criteria and weighting

- ❖ In order to be eligible to graduate, the student must successfully complete a minimum of 80 hours on the job placement in his/her chosen field and 5 hours of required workshops on or before May 13, 2015.
- ❖ The student must have the employer complete and sign the “student evaluation form” and submit the form to the Student Advisor in the Technology Office (H140A) on or before May 13, 2015. **The evaluation must indicate a satisfactory rating.** Please be aware that employers may also be contacted by the Student Advisor or the Program Coordinator.
- ❖ If a student does not successfully complete his/her placement requirements he/she will not be eligible to graduate.
- ❖ The student must also submit a completed tracking form (Task Log) to the Student Advisor in the Technology Office (H140A) on or before May 13, 2015. This tracking form (Task Log) is attached to the employer evaluation form in your placement package and must be **signed** by the employer.

Terms and conditions of placement

Students must have a minimum 2.0 GPA and have successfully completed all of their first and second year courses before they can begin their placement. Exceptions may be made with the written consent of the Dean.

Placement must be completed before final grades are due in order to graduate.

Placement comes in different formats for different programs. The minimum requirement is that each student obtains at least 80 hours of program related, practical work experience in his/her chosen field plus 5 hours required workshops.

The placement options are:

- 1) One day a week during the fall and/or winter semester for a minimum of 80 hours.
- 2) A summer position after second year related to your field of study.
- 3) An “internship” for 4, 8, 12 or 16 months.
- 4) A prior work experience with proper approval and documentation.
- 5) Working during a block period of time such as the Xmas break, Reading week or in May once all course work is complete.

Students are responsible for their own transportation, safety glasses and safety boots. Placement should be treated as a job and proper work attire should be worn. If sick, it is the student’s responsibility to call his or her workplace supervisor. In addition, any work issues should be discussed with support person first. If there is no resolution, please speak to the Program Coordinator or Maureen Green, the Student Advisor in H140A.

Should the field placement assignment not meet the needs of the student, the student, in conjunction with the placement coordinator will attempt to find another placement company for the student. The student should notify the field placement coordinator within two weeks of the assignment if alternate arrangements need to be made.

In addition, the Coordinators receive leads from employers in regard to the employer’s placement requirements. These leads are then passed on to the students but may be subject to change from year to year.

Program Information

Biomedical Engineering Technology (includes Fast Track program) 3 Year Diploma

Program Description

The Biomedical Engineering Technology program prepares the student to meet the growing demands in the health care industry for the installation, testing, calibration, preventative maintenance, sales and management of sophisticated electronic and computer controlled medical equipment and systems.

The program is three years in duration, covering theory with hands-on practical, project-based learning of electronic circuits and systems, biomedical devices and systems, biology, chemistry and physics, anatomy and physiology, diagnostic imaging, dialysis, systems, biomedical instrumentation, safety standards, risk management, and report writing.

Graduates will have opportunities in instructing, assisting and consulting physicians, nurses and other medical staff with a variety of medical and electronic equipment, which must be kept in proper working order at all times so that the proper and safe delivery of patient care is not compromised. They will also have the technical and management skills to work for medical equipment manufacturers, sales and service organizations, medical laboratories, and regulatory institutions.

A five week placement block will be completed in the spring with graduation in the fall.

Advanced Standing:

Students with post-secondary credits may be considered for advanced standing on an individual basis.

Fast Track Opportunity:

Both domestic and internationally educated students with a Bachelor of Science (BSc) in Biomedical Engineering may be eligible for a compressed, fast track opportunity to complete diploma requirements in two semesters.

Qualified graduates of this program may be eligible to apply their academic credits towards further study. See Credit Transfer Information under Additional Important Information in the Index.

For further information, please see the Durham College Pathways to Degrees under Additional Important Information.

Employment Opportunities

- biomedical technology
- diagnostic imaging
- dialysis technology
- lab equipment service
- technical sales and support
- certification and regulation

Synopsis of the Vocational Learning Outcomes

Biomedical Engineering Technology (Ontario College Diploma)

The graduate has reliably demonstrated the ability to

1. Communicate information effectively, credibly, and accurately by analyzing, interpreting, and producing electrical and electronics drawings and other related documents and graphics;
2. Apply the principles of mathematics and science to analyze and solve technical problems related to electronics and computer engineering;
3. Select and use a variety of troubleshooting techniques and test equipment to assess electronics circuits, equipment, systems and subsystems;
4. Design, build, and troubleshoot working prototypes of electronics circuits, equipment, systems, and subsystems to meet job requirements, functional specifications and relevant standards;
5. Modify, maintain and repair electronics equipment and systems to ensure that they function properly;
6. Select for purchase electronics equipment, components, and systems that fulfill the job requirements and functional specifications;
7. Design, analyze and troubleshoot logic and digital circuits;
8. Design, analyze and troubleshoot passive AC and DC circuits;
9. Design, analyze and troubleshoot active circuits;
10. Design, analyze and troubleshoot microprocessor-based systems;
11. Design, analyze and troubleshoot control systems;
12. Design, analyze and troubleshoot communication systems;
13. Develop and use computer programs to support electronics engineering;
14. Apply knowledge of basic shop practices to electronics engineering workplaces;
15. Assist in the specifying, coordinating and conducting of quality control and quality assurance programs and procedures;
16. Prepare and maintain records and documentation;
17. Complete all work in compliance with relevant law, policies, procedures, regulations and ethical principles;
18. Participate in the installing, configuring, modifying, troubleshooting, and maintaining a variety of architecture of computer systems and networks to meet user requirements;
19. Monitor and operate workplace biomedical equipment safely and take responsible decisions to prevent mishaps and handle hazardous situations in compliance with industry standards and regulations;
20. Use fundamental understanding of anatomy, physiology and biochemistry principles to analyse and evaluate technologies used in the biomedical field;
21. Apply all aspects of safety standards and infection control to a typical biomedical environment in both a hospital and laboratory setting;
22. Analyze, evaluate, calibrate, maintain and troubleshoot biomedical devices and measuring equipment;
23. Analyze, maintain and troubleshoot basic photonic biomedical instrumentation focusing on the use of lasers in medical applications;

24. Repair and maintain dialysis and water treatment equipment enforcing the appropriate government standards where applicable;
25. Participate in the commissioning of medical imaging systems, including troubleshooting, maintaining and ensuring compliance to safety standards;
26. Manage inventory and schedule regular maintenance of material, equipment and machinery used in the biomedical field; and
27. Research and access sources of technical information using appropriate methods for theoretical research, practical or applied research, and comprehensive literature review.

Electronics Engineering Technician

2 Year Diploma

Program Description

Electronics is forefront in the exciting world of high technology. No branch of science engineering technology has contributed more to the development of the modern world than electronics.

Electronics technicians maintain, operate, test, install and service electronic equipment in the fields of communications, computing, industrial automation, test and measurement, power generation and distribution, health care, and consumer products.

The Electronics Engineering Technician program is two years in duration, covering theory with hands-on practical, project-based learning of analog and digital electronic circuits and systems. Electronics Technicians operate, test, install and service electronic systems in the fields of communications, computing, industrial automation, test and measurement, power generation and distribution, health care, and consumer products.

Advanced Standing:

Students with post-secondary credits may be considered for advanced standing on an individual basis.

Qualified graduates of this program may be eligible to apply their academic credits towards further study. See Credit Transfer Information under Additional Important Information in the Index.

For further information, please see the Durham College [Pathways to Degrees](#) under Additional Important Information.

Employment Opportunities

- Telecommunications equipment services
- Office equipment service technician
- Computer technician
- PLC programming
- Network technician
- Field technician
- Technical sales

Synopsis of the Vocational Learning Outcomes

Electronics Engineering Technician (Ontario College Diploma)

The graduate has reliably demonstrated the ability to

1. analyze, interpret, modify and prepare electrical and electronics drawings, layouts and reports, with guidance as required.
2. analyze and solve routine technical problems related to electronics engineering by applying fundamental concepts of mathematics and science.
3. apply appropriate troubleshooting techniques to electronic circuits or systems and perform test procedures.
4. assemble, modify, test and troubleshoot electronic circuits, equipment and systems in accordance with job requirements, functional specifications and relevant standards, with guidance as required.
5. maintain and repair electronic equipment and systems in accordance with relevant operational guidelines.
6. provide justification for the purchase of electronic equipment, components and systems in accordance with code, standards and job requirements, and functional specifications.
7. analyze and troubleshoot logic and digital circuits, as well as embedded microprocessor-based and microcontroller-based systems, including assembly and high-level language programs.
8. analyze and troubleshoot circuits consisting of passive components by applying appropriate measurement techniques.
9. analyze and troubleshoot circuits consisting of low power, high power, active and electromechanical components, and analog integrated circuits.
10. analyze and troubleshoot control systems.
11. troubleshoot, maintain and repair analog and digital communication systems.
12. apply relevant shop practices in compliance with safety policies and current regulations for electronics engineering workplaces.
13. assist in implementing and conducting quality control and quality assurance programs and procedures.

Electronics Engineering Technology (includes Fast Track program)

3 Year Diploma

Program Description

Electronics is forefront in the exciting world of high technology. No branch of science engineering technology has contributed more to the development of the modern world than electronics. Electronic technologists design, operate, test, install and service electronic systems in the fields of communications, computing, industrial automation, test and measurement, power generation and distribution, health care and consumer products.

The Electronics Engineering Technology program is three years in duration, covering theory with hands-on practical, project based learning of analog and digital electronic circuits and systems, microprocessor based controls, robotics and PLC based controls, telecommunication systems and instrumentation and control.

Advanced Standing:

Students with post-secondary credits may be considered for advanced standing on an individual basis.

Fast Track Opportunity

Both domestic and internationally educated students with a Bachelor of Engineering degree in Electrical or Electronics Engineering may be eligible for a compressed, fast track opportunity to complete diploma requirements in four semesters.

Qualified graduates of this program may be eligible to apply their academic credits towards further study. See Credit Transfer Information under Additional Important Information in the Index.

For further information, please see the Durham College [Pathways to Degrees](#) under Additional Important Information.

Employment Opportunities

- Robotics technologist
- Nuclear operator
- Instrumentation technologist
- Controls technologist
- Telecommunications technologist
- Computer technologist
- PLC programmer and controls specialist
- Networking technologist
- Technical sales
- Plant maintenance
- Technical consultant
- Field technologist

Synopsis of the Vocational Learning Outcomes

Electronics Engineering Technology (Ontario College Advanced Diploma)

The graduate has reliably demonstrated the ability to

1. analyze, interpret, modify, design and produce electrical and electronics drawings, layouts and reports.
2. analyze and solve technical problems related to electronics engineering by applying principles of advanced mathematics and science.
3. apply appropriate troubleshooting techniques to electronic circuits or systems and generate and perform test procedures.
4. design, build, test and troubleshoot electronic circuits, equipment, systems and subsystems in accordance with job requirements, functional specifications* and relevant standards.
5. modify, maintain, repair and recommend electronic equipment and systems in accordance with relevant operational guidelines.
6. determine, select, recommend and justify the purchase of electronic equipment, components and systems in accordance with code, standards and job requirements and functional specifications.
7. design, modify, analyze and troubleshoot logic and digital circuits, and embedded microprocessor-based and microcontroller-based systems, including assembly and high-level language programs.
8. design, analyze and troubleshoot circuits consisting of passive components by applying appropriate measurement techniques.
9. design, analyze and troubleshoot circuits consisting of low power, high power, active and electromechanical components, and analog integrated circuits.
10. design, analyze and troubleshoot control systems.
11. design, analyze, troubleshoot and repair analog and digital communication systems.
12. apply relevant shop practices in compliance with safety policies and current regulations for electronics engineering workplaces.

Electro-Mechanical Engineering Technology

3 Year Program

Program Description

This program prepares students for careers in multiple areas of technology, spanning the electrical and mechanical engineering technology boundaries. The program's primary focus is industrial automation and the associated control systems, mechanical power transmission, programming, design, integration and documentation.

Graduates of this program are employed in a wide range of careers. Some graduates design industrial control systems for a variety of machines and systems, whereas others install, service, document and troubleshoot a wide assortment of automated machines and systems. Some graduates find themselves performing plant maintenance, technical sales or support specialist services.

Electro-Mechanical Engineering Technology students are the primary users of the Integrated Manufacturing Centre (IMC). The IMC is a fully functional, industrial grade automated manufacturing facility that is completely integrated. Major equipment components within IMC are industrial robots, PLCs, HMIs, industrial networks, automatic ID and material handling systems.

IMC is a modern world class training facility that is unique to post-secondary training in Canada. IMC gives our graduates a definite edge in the industrial automation field.

Today's companies require technical experts who are trained in more than one discipline of engineering technology. Rapid changes in the manufacturing sector have increased the demand for improved efficiency and productivity. Electro-Mechanical graduates are an asset to any company that utilizes automated manufacturing and/or industrial control systems. Mandatory field placement consists of a minimum of 80 hours of hands-on experience, in industry, relevant to the program of studies.

Advanced Standing:

Students with post-secondary credits may be considered for advanced standing on an individual basis.

Qualified graduates of this program may be eligible to apply their academic credits towards further study. See Credit Transfer Information under Additional Important Information in the Index.

For further information, please see the Durham College [Pathways to Degrees](#) under Additional Important Information.

Employment Opportunities

- Automation specialist
- Control systems design
- CAD design/drafting
- Maintenance supervisor
- Robotic technologist
- Technical sales
- Plant maintenance
- Electrical service industry
- PLC programmer
- Pneumatic/hydraulic specialist
- Application engineering
- Instrumentation technologist
- Consulting services
- Machinery design and control

Synopsis of the Vocational Learning Outcomes

Electro-mechanical Engineering Technology Programs

The graduate has reliably demonstrated the ability to

1. fabricate mechanical components and assemblies, and assemble electrical components and electronic assemblies by applying workshop skills and knowledge of basic shop practices in accordance with applicable codes and safety practices.
2. analyse, interpret, and produce electrical, electronic, and mechanical drawings and other related documents and graphics necessary for electromechanical design.
3. select and use a variety of troubleshooting techniques and test equipment to assess electromechanical circuits, equipment, processes, systems, and subsystems.
4. modify, maintain, and repair electrical, electronic, and mechanical components, equipment, and systems to ensure that they function according to specifications.
5. apply the principles of engineering, mathematics, and science to analyse and solve design and other complex technical problems and to complete work related to electromechanical engineering.
6. design and analyse mechanical components, processes, and systems through the application of engineering principles and practices.
7. apply principles of mechanics and fluid mechanics to the design and analysis of electromechanical systems.
8. design, analyse, build, and troubleshoot logic and digital circuits, passive AC and DC circuits, and active circuits.
9. design, select, apply, integrate, and troubleshoot a variety of industrial motor controls and data acquisition devices and systems.
10. design, analyse, and troubleshoot microprocessor-based systems.
11. install and troubleshoot computer hardware and high-level programming to support the electromechanical engineering environment.
12. analyse, program, install, integrate, and troubleshoot automated systems including robotic systems.
13. establish and maintain inventory, records, and documentation systems.
14. assist in project management by applying business principles to the electromechanical engineering environment.
15. select for purchase electromechanical equipment, components, and systems that fulfill the job requirements and functional specifications.

16. specify, coordinate, and conduct quality-control and quality-assurance programs and procedures.
17. perform all work in accordance with relevant law, policies, codes, regulations, safety procedures, and standard shop practices.
18. develop personal and professional strategies and plans to improve job performance and work relationships with clients, coworkers, and supervisors.

Note: The learning outcomes have been numbered as a point of reference. Numbering does not imply prioritization, sequencing, nor weighting of significance.

Websites for the School of Science and Engineering Technology Program of Studies

Architectural Technician/Technologist

<http://www.durhamcollege.ca/programs/architectural-technician>

<http://www.durhamcollege.ca/programs/architectural-technology>

Biomedical Engineering Technology/Biomedical Engineering Technology Fast-Track

<http://www.durhamcollege.ca/programs/biomedical-engineering-technology>

<http://www.durhamcollege.ca/programs/biotechnology-advanced-compressed-fast-track>

Biotechnology Advanced/Biotechnology Advanced Fast-Track

<http://www.durhamcollege.ca/programs/biotechnology-advanced>

<http://www.durhamcollege.ca/programs/biotechnology-advanced-compressed-fast-track>

Chemical Engineering Technology/Chemical Engineering Technology Fast-Track

<http://www.durhamcollege.ca/programs/chemical-engineering-technology>

<http://www.durhamcollege.ca/programs/chemical-engineering-technology-compressed-fast-track>

Chemical Laboratory Technician

<http://www.durhamcollege.ca/programs/chemical-laboratory-technician>

Electro-Mechanical Engineering Technology

<http://www.durhamcollege.ca/programs/electro-mechanical-engineering-technology>

Electronics Engineering Technician/Electronics Engineering Technology/Electronics Engineering Technology Fast-Track

<http://www.durhamcollege.ca/programs/electronics-engineering-technician-two-year>

<http://www.durhamcollege.ca/programs/electronics-engineering-technology-three-year>

<http://www.durhamcollege.ca/programs/electronics-engineering-technology-compressed-fast-track>

Energy Management Sustainable Building Technology

<http://www.durhamcollege.ca/programs/energy-management-and-sustainable-building-technology>

Environmental Technology/Environmental Technology Fast-Track

<http://www.durhamcollege.ca/programs/environmental-technology>

<http://www.durhamcollege.ca/programs/environmental-technology-compressed-fast-track>

Horticulture-Food and Farming

<http://www.durhamcollege.ca/programs/food-and-farming>

Horticulture Technician

<http://www.durhamcollege.ca/programs/horticulture-technician>

Mechanical Engineering Technician

<http://www.durhamcollege.ca/programs/mechanical-engineering-technician>

Mechanical Engineering Technician Non-Destructive Evaluation/Mechanical Engineering Technician Non-Destructive Evaluation Fast-Track

<http://www.durhamcollege.ca/programs/mechanical-engineering-technician-non-destructive-evaluation>

<http://www.durhamcollege.ca/programs/mechanical-engineering-technician-non-destructive-evaluation-compressed-fast-track>

Mechanical Engineering Technology

<http://www.durhamcollege.ca/programs/mechanical-engineering-technology>

Pharmaceutical and Food Science Technology/Pharmaceutical and Food Science Technology Fast-Track

<http://www.durhamcollege.ca/programs/pharmaceutical-and-food-science-technology>

<http://www.durhamcollege.ca/programs/pharmaceutical-and-food-science-technology-compressed-fast-track>

Water Quality Technician

<http://www.durhamcollege.ca/programs/water-quality-technician>

Durham College Academic Policies & Procedures

To view the Durham College Academic Policies & Procedures, please go to: www.durhamcollege.ca/academicpolicies

School of Science and Engineering Administrative Policies

Communication/MyCampus

Regular communication between college staff and students is very important to ensure that students stay informed about special events, changes in programming and various deadlines. The School of Science and Engineering Technology office will use MyCampus (DC Mail) email to alert you to important details about your program. You are requested to visit MyCampus often to view campus-wide announcements and to check your MyCampus email account. Professors will confirm their preferred method of communication. Emails sent to professors and/or staff must be professional in appearance and content. Inappropriate emails will be retained and a copy forwarded to the dean or associate dean for appropriate action.

Timetables and timetable changes

Timetables are available online through our intranet – “MyCampus”. You can view and/or print your timetable from any computer with internet access. If you require assistance, please contact the Help Desk: (905) 721-3333. MyCampus provides students with the ability to modify timetables at specified times as listed in the Academic Calendar (posted on MyCampus). **Please note: students have the responsibility to ensure that all of their required courses are on their schedules.** Assistance is available via your Student Advisor. Should you find a discrepancy on your timetable, **seek assistance immediately.**

Disclaimer

Because of our commitment to continuous improvement of our curriculum, there may be some changes in courses offered. If this occurs, we will notify those affected.

Course/program changes

Adding and/or deleting courses or changing a program must be done within the first week of course or program commencement.

Application for a course credit

Applications must be submitted to the Registrar's Office no later than two weeks from the course commencement.

Emergency Calls

The School of Science and Engineering Technology staff will accept messages for students in the event of a family emergency. Please make sure that anyone in your life who needs to locate you during class time for reasons other than an emergency has a copy of your timetable (e.g. classmates, family, day care provider, and employer). The staff is unable to release your schedule information to anyone due to the Freedom of Information Act.

Freedom of Information

Freedom of Information/Protection of Privacy - Pursuant to the Freedom of Information & Protection of Privacy Act, the School of Science and Engineering Technology office may not release any personal information regarding a student. This includes academic standing, personal data, timetable information etc. without a signed Release of Information form initiated by the student.

Course Completion/Attendance

Minimum course completion and attendance requirements will be specified in the course outlines. Students must be present and complete a lab before a report can be accepted unless alternative work is assigned. Students must attend their assigned lab period unless excused by the professor (due to exceptional circumstances). Class attendance and participation will enhance your opportunities for success. Please refer to the course outline for specific expectations for each course.

Assignments

Students should keep back-up copies of all assignments in case the original is lost. Electronic submission of assignments is at the option of the professor. Assignments submitted electronically must be in the software format as stated specifically by your professor. Attachments that will not open are the responsibility of the student and subject to the late penalty.

Handing in/Returning of Reports/Assignments

Deadlines will be clearly specified in each course outline and all submissions must meet specified guidelines as detailed by the section professor. Academic penalties for late assignments will be specified in course descriptions. This may be up to non-acceptance of assignment and a mark of zero. A secure method of handing in and returning reports will be specified by each professor.

Faculty will return tests/assignments to students within a **three** week time frame. Confidentiality will be maintained and tests, grades, or assignments will not be posted or left in areas for students to pick up.

Academic Dishonesty

Efforts will be made to deny opportunities for dishonesty. These may involve changing rooms, having more than one invigilator, providing exam booklets, disallowing personal items etc. Any student caught cheating will be dealt with under the Durham College Academic policy.

<http://www.durhamcollege.ca/wp-content/uploads/ACAD-101-Academic-Integrity.pdf>

Examinations

In this section, a final examination is defined as an invigilated comprehensive evaluation given just after regularly scheduled classes. (Week 15) Final examinations will be held for courses as specified in the course outline. A final examination will be comprehensive, and examination questions should reflect the approximate time weighting specified in the course outline.

Prerequisite courses

Course prerequisites exist to promote student success. Exceptions to the established prerequisite course structure are not permitted. Students who do not have all credits completed from previous semesters may not be eligible for a full-time course load due to required prerequisites. Students with “non-standard” scheduling needs are urged to review their academic plan with the Student Advisor each semester.

Repeating courses

Durham College’s grading and promotion policy states that courses may be repeated only once without approval from the Dean or designate. The School of Science and Engineering Technology approves repeating of courses for all Science and Engineering students who are repeating a course a second time or more. Students are encouraged to meet regularly with the Student Advisor if they are struggling with academic success.

Withdrawing from a course

All withdrawals must be done within the first two weeks of the start of any module with no record notes on the student’s transcript. Students withdrawing from a course during week three, four or five of the start of the module will have the course recorded as a ‘W’ (withdrawn) on their transcript. Students may not withdraw from a course during the last two weeks of the module in which they are enrolled. After this date, all courses will be graded and recorded on the student’s transcript. Please refer to the “Important Dates” section for a listing of withdrawal deadlines.

Graduation Requirements

Students must have a minimum GPA of 2.0 to be eligible for graduation. In addition, a student must have successfully completed all required courses. A student who has a GPA of less than 2.0 should contact the School of Science and Engineering Technology office to arrange for academic counselling. Please refer to the academic policies posted on the Durham College website, www.durhamcollege.ca/policies, for more information. At least 25% of the completed program courses and/or weighted credit hours must be completed

at Durham College to be eligible for a Durham College diploma. Students must complete an application for graduation on MyCampus or via paper form in Registration.

Application for graduation

Applications for graduation for those wishing to graduate at the June Convocation are available online via MyCampus in January and due by a specified deadline (usually mid-February). A diploma will not be prepared until the application is received. Applications for graduation for the October Convocation are usually due by mid-September. Check MyCampus for deadline dates and updates.

Computer Labs

Computer labs are reserved for coursework. Games are not permitted. Adult material must not be displayed at any time. Please refer to the Information Technology Acceptable Use policy posted on the Durham College website www.durhamcollege.ca/policies. Note: afterhours access to labs is unique by course and must be approved by the professor. Students must sign in and out with Security.

Laptop & Desktop Computers: (Instant Messaging, (MSN, etc.) Chat, Gaming, Cell phones)

Research studies and feedback have shown that these activities can cause a distraction to other students. They are not acceptable classroom behaviours. Students involved in chatting or gaming during a teaching session will be asked to leave the classroom.

Safety in Science Labs

Before students begin working in the laboratories they must undergo **documented** safety training and evaluation. This is available on line through Durham Connect (D2L) and must be completed before admittance to any laboratory. Students who endanger themselves or others in the lab will receive a warning and a written report (Academic Alert Form). After the second occurrence the student will be required to meet with the dean. After the third occurrence the student will be asked to withdraw from the course. Please refer to the Lab Safety Regulations for detailed expectations.

Missed Laboratories

If a student misses a lab due to illness, documentation must be provided. If documentation cannot be provided, the student will receive a mark of zero for the missed lab. If a student misses labs due to compassionate reasons, a note from the program manager/coordinator will be required. Students will not write up a laboratory report for labs they did not attend.

Lab Cleanliness

Everyone is expected to leave the labs clean and neat. Course outlines may specify an academic reward/penalty to encourage this. Students will not be signed out of the laboratory until their work area is clean and tidy.

Placement

Students must have a 2.0 GPA and no failures or outstanding courses in order to qualify for placement in third year. Students must successfully complete 80 hours of on the job placement in their chosen field and five (5) hours of required workshops. Proper documentation must be provided to Maureen Green in the Technology Office (H140) before May 15th in the graduating year.

Examinations

- a) Graduating students requesting exemption from final exams because of employment must provide their dean or designate with a letter from their potential employer explaining the situation. The opportunity must be for a full time permanent position in a program related field. The student's grades must be reviewed in order to ensure that the student is in good standing, maintaining a minimum 2.0 GPA and eligible to graduate with Aegrotat already on file.
- b) Students writing exams in the Student Academic Learning Centre, see Table of Contents for specific information page.

Grade Point Average GPA

Students must have a 1.5 or greater GPA at the end of year one to proceed to year two. Students with a GPA less than 1.5 will be advised to repeat year one, but may get credit for any courses with a 60% or better. Students with 0.0 to .99 GPA will be automatically suspended; students with a 1.0 to 1.49 GPA will automatically be on probation. Students on suspension and probation do not receive an invoice to proceed and must meet with their Student Advisor. Second year students with a GPA less than 1.75 will be advised to repeat year two. Note: these are the minimum requirements. All students want to maintain a 2.0 GPA to ensure academic success. All students must have a 2.0 GPA and no failures to graduate from the program. Students in a 3 year program will be required to complete a Field Placement component (minimum 80 hours on the job and 5 hours required workshops) to be eligible to graduate. Please refer to your Student Handbook or your Student Advisor for more information on GPA.

Grade appeals

Students who do not agree with their marks have 15 days from receipt of that mark to launch a grade appeal. The first step in the appeal is to speak to the professor who issued the grade. For more details on the grade appeal process please consult the procedures regarding grade appeals posted on MyCampus.

ADDITIONAL IMPORTANT INFORMATION:

Academic Advising - Student Advisors

Each school provides a student advisor(s) to help you reach your full academic potential. These representatives can assist you with: accessing other college services; developing academic plans to promote success in the event of failed subjects or a low GPA; finding equivalent credits; identifying career goals and making sound academic decisions; making decisions regarding full- and part-time studies; reviewing graduation requirements; selecting electives and options; setting up academic plans; or transferring to another program. To view contact information for your Student Advisor, please visit: <http://www.durhamcollege.ca/student-experience/helping-you-succeed/academic-support-resources/academic-advising>

Academic Integrity

Academic integrity refers to the pursuit of scholarly activity in an open, honest and responsible manner. Acts that undermine academic integrity, such as plagiarism, cheating and misrepresentation of work, contradict Durham College's core values.

To ensure the highest academic standards, students are accountable for the work they produce, and student work must be the product of his or her efforts. Durham College has purchased a license with Turnitin.com, an online service to detect unoriginal work and citation errors. The Academic Integrity Policy and Procedure documents (<http://www.durhamcollege.ca/academicpolicies>) provide a comprehensive explanation of Durham College's expectations regarding academic integrity.

Aegrotat

Aegrotat refers to a 'compassionate pass' in a course in which, due to **emergency circumstances** related to health and wellness, a student was unable to complete all of the evaluation requirements. Emergency circumstances that may warrant the designation of an Aegrotat include, but are not limited to: injury, illness and/or bereavement. Documentation supporting the request for an Aegrotat designation may be required.

The awarding of an Aegrotat credit is noted in a student's transcript as AEG and is therefore not included in the calculation of a student's grade point average. A student shall receive Aegrotat standing only once in a five year period.

Further information about Aegrotat standing can be found in the Aegrotat Policy and Procedure documents, please visit the following link: <http://www.durhamcollege.ca/academicpolicies>

Centre for Students with Disabilities

The Centre for Students with Disabilities (CSD) at Durham College provides services to students with disabilities to ensure that equal access is available to all aspects of the academic environment. These services are designed in accordance with the Ontario Human Rights Code and the Accessibility for Ontarians with Disabilities Act. Our services are confidential. Please visit the following link to view valuable information regarding the CSD:

<http://durhamcollege.ca/student-experience/helping-you-succeed/centre-for-students-with-disabilities>

Continuing Education Course Book

If you are unable to access a day-time course (timetable conflicts, wish to repeat a course, etc.) or want to get a head start on your next semester, discuss your options with your Student Advisor. To view comprehensive information regarding Continuing Education offerings, please visit the following link:

<http://www.durhamcollege.ca/academic-schools/school-of-continuing-education>

Course Outlines

For each course, a Course Outline that describes course learning outcomes, course content, learning activities, evaluation methods, timelines and support resources is available online. Please note that students are expected to download copies of their course outlines from MyCampus prior to the first class in each course. Instructions for downloading are located on MyCampus at:

<http://www.durhamcollege.ca/mycampus>

Please visit the following link to view the Course Outlines Policy and Procedure documents:

<http://www.durhamcollege.ca/academicpolicies>

Credit Transfer Information

Durham College is dedicated to helping you build upon your previous education. If you have studied previously at Durham College or another recognized post-secondary institution, you may be eligible to receive credit for the courses you have successfully completed. Please view the following link for credit transfer information: www.durhamcollege.ca/credittransfer

Durham College Mission, Vision and Values

Our mission, vision, values were created to help ensure the success of our students, staff and faculty. Please view our guiding principles at the following link:

<http://www.durhamcollege.ca/about-us/corporate-links/governance/mission-vision-and-values>

Essential Employability Skills

Essential Employability Skills (EES) are skills that, regardless of a student's program or discipline, are critical for success in the workplace, in day-to-day living, and for lifelong learning. Please view the following link for further information:

<http://www.tcu.gov.on.ca/pepg/audiences/colleges/progstan/essential.html>

General Education

The Ministry of Colleges and Universities requires all Ontario college students enrolled in a 2-year Ontario College Diploma or a 3-year Ontario College Advanced Diploma program to successfully complete three or more General Education (GNED) courses prior to graduation. For more information about GNED course selection, a full listing of GNED electives (with course descriptions), and how to receive GNED credits for prior post-secondary studies, please visit the General Education website at: <http://www.durhamcollege.ca/academic-schools/school-of-interdisciplinary-studies-employment-services/general-education>

Important Dates

Durham College strives to keep you informed of all important dates throughout the academic year. Please review the 2014-2015 important dates that includes fee payments, web registration, add/drop, exam dates etc. You can find this information online, in the Durham College handbook and on MyCampus. Please review MyCampus for important updates and reminders on important dates.

Learning Management System Usage (LMS)

Professors are expected to use LMS or DC Connect to support student learning. As per the Learning Management System Usage procedure, faculty will post and reveal all marks to their students on an ongoing basis. To view the LMS Usage Policy and Procedure, please visit the following link:

<http://www.durhamcollege.ca/about-us/corporate-links/governance/policies>

Library

The Library is here to help you succeed! Stop by for help to research a topic, complete an assignment, or when you just need a quiet place to study. You may visit the library virtually at <http://www.durhamcollege.ca/library> or to view information regarding locations, hours, and more, please visit the following link: <http://www.durhamcollege.ca/student-experience/learning-spaces/library/about-the-library>

Missed Final Examinations

A final examination is a discretely designed assessment administered in Week 15 of a 14 week semester. Students who, as a result of **non-emergency circumstances**, miss one or more final examinations during a single examination period may be eligible to apply to defer/reschedule the writing of these assessments.

To be eligible, students must have no less than a cumulative 1.5 GPA, apply for consideration using the appropriate forms and pay a fee. This privilege can only be used by a student once in a five-year period. External accreditation requirements, the availability of appropriate examination facilities and other constraints necessitate that not all courses will be eligible.

For more details, students should speak with their Student Advisor or review the Missed Final Examination Policy and Procedure documents at the following link:

<http://www.durhamcollege.ca/academicpolicies>

Pathways to Degrees

Continue your post-secondary journey and leverage your Durham College education to earn additional credentials. To learn how you can further your education, visit www.durhamcollege.ca/pathways or check out the Durham College Transfer Guide at www.durhamcollege.ca/transferguide. Additional information regarding transferring between institutions in Ontario can be found at www.ontransfer.ca.

Prior Learning Assessment and Recognition (PLAR)

Prior Learning Assessment and Recognition (PLAR) is the process you can use to gain college credit(s) for learning and skills acquired through previous experiences. This may include workplace training, life experiences, self-directed study, community work, travel, hobbies and military service. By using the PLAR process, you may be able to complete a college certificate or diploma program in less time. Please view the following link for PLAR information:

<http://www.durhamcollege.ca/wp-content/uploads/plar.pdf>

Requirements for Promotion

Evaluation and Promotion:

Academic courses are evaluated using a variety of methods such as tests, essays, labs, written or verbal assignments, in-process activities, group work and/or final examinations. The evaluation criteria for each course are noted in its course outline. Students are advised to familiarize themselves with these criteria early in the semester. Please refer to the Grading and Promotion Policy and Procedures documents (<http://www.durhamcollege.ca/academicpolicies>) for a complete overview of grading and promotion practices.

Academic Probation:

Students who are not progressing satisfactorily according to criteria published in their respective program guides may be placed on academic probation, at the discretion of the school Dean or designate. Such students may be allowed to continue their studies on a Letter of Permission (an academic student contract) which will specify conditions which must be met to continue in their programs. Students who do not meet the conditions of their academic probation may be required to withdraw from full-time studies.

Scholarships, Bursaries and Awards

The Financial Aid and Awards office provides students with options to help fund their educational costs. To view valuable information, please visit the Financial Aid and Awards [Web Site](#).

Student Academic Learning Services (SALS)

The Student Academic Learning Services Centre helps Durham College students to achieve their academic goals. Academic supports include: peer tutoring, learning skills services, writing skills services, English language services, and subject specific supports for math, science, and business. Please visit the following link to view valuable information regarding SALS including how to register for 24/7 online access to SALS academic resources:

<http://durhamcollege.ca/student-experience/helping-you-succeed/student-academic-learning-services-sals>

Student Communications

Durham College is committed to communicating important information to you. Please view the following link to reference a comprehensive chart indicating specific vehicles. For example, social media, DC website, DC Mail, MyCampus, DC Connect, and more:

http://www.durhamcollege.ca/wp-content/uploads/DCCares_StudentMatrix_v5.pdf

Student Rights and Responsibilities

A policy and procedure is in place which articulates the rights and responsibilities of students at Durham College, and provides a framework for addressing non-academic misconduct by students. To view the Student Rights and Responsibilities Policy and procedure, please visit the following link:

<http://www.durhamcollege.ca/academicpolicies>