



SCHOOL OF AVIATION

STUDENT HANDBOOK

For
Students in Programs in:

269 Aviation Technician – Aircraft Maintenance
289 Aviation Technician Aircraft Structures

30 September for
FALL 2013
Bill Brimley

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Welcome from Faculty and Staff

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WELCOME FROM FACULTY AND STAFF

This handbook is to provide guidance and information for students. Every effort is made to keep this handbook accurate and timely. Prospective students should however, check with the School of Mechanical Engineering Technology and NDE for details regarding admission requirements, enrolment limitations, co-operative education, and the program of studies for the various programs offered by the school. For more information visit our website at www.mohawkcollege.ca

Information Contacts

For general information about –

Mohawk College	(905) 575-1212
Admissions	
Post-Secondary	ext 2415
Continuing Education	ext 2422
Counselling Department	ext 2211
Disability Services	ext 2389
Financial Aid & Awards	ext 2133
Mohawk Job Centre	
Cooperative Education	ext 2167
Student & Graduate Employment Service	ext 2167

For specific information about –

Aviation Technician

Mr. Mark Laurie (905) 575-1212 ext XXXX

Non-Destructive Evaluation (NDE)

Ms. Sharon Bond (905) 575-1212 ext XXXX
Mr. Brad Bowman (905) 575-1212 ext XXXX

MOHAWK COLLEGE OF APPLIED ARTS AND TECHNOLOGY

Mohawk College has grown to be one of the great Canadian community colleges. It began with the establishment of the Provincial Institute of Textiles (PIT) in 1947, which in turn became the Hamilton Institute of Technology (HIT) in 1957. Ten years later, in 1967, the HIT was incorporated as the newly established Mohawk College of Applied Arts and Technology. The College supports campuses and education centres in Brantford, Hamilton, and Stoney Creek.

A great variety of full-time, post-secondary certificate and diploma programs together with a wide range of part-time courses and programs, leading to either a certificate or college diploma, are possible in the following areas:

- Business
- Continuing Education
- Engineering Technology
- Health Sciences
- Human Services
- Interdisciplinary Studies
- Media, Graphics & Communication
- Skilled Trades and Apprenticeships

Many of the programs are co-operative in nature, offering students the opportunity to experience the real workplace environment and gain valuable on-the-job training. The college also has many partnerships in training and technology to make us more valuable to the students and the community at large.

Mohawk College serves the communities throughout Southern Ontario, offering over 100 full-time programs and more than 1,000 Continuing Education courses. There are currently 10,000 full-time post-secondary students enrolled at Mohawk College and 40,000 continuing education students. Mohawk College is the largest in-school apprenticeship trainer in the province, with more than 3,000 apprentices registered in skilled trades programs. There are close to 800 full-time employees, including over 400 faculty, and an alumni association of more than 72,000 members. There is also a 342 bed on-campus student residence.

The Accessible Learning Services staff develops ways to eliminate barriers and facilitates access for students at all campuses that may have learning or physical disability, visual or hearing impairment, mobility impairment, or other disability. Student self-identification well in advance of course or program start-up is required to effectively evaluate, plan, co-ordinate, and implement support service. For more information please contact the Accessible Learning Services.

Make Mohawk College your choice...and if you're not sure, ask a graduate!

Visit the College's website at www.mohawkcollege.ca.

SCHOOL OF AVIATION

The School of Aviation is a part of the Faculty of Engineering Technology at Mohawk College.

The Aviation programs are Approved by Transport Canada and Nationally Accredited through the Canadian Council of Aviation and Aerospace. These programs provide a solid background in theory and applications in Aviation Maintenance. They comprise a unique partnership with the Canadian Warplane Heritage (CWH) Museum and Hamilton International Airport to provide hands on training in an operational airport environment utilizing not only static, but flying aircraft.

AVIATION TECHNICIAN – AIRCRAFT MAINTENANCE

Prepare for certification by Transport Canada as an Aircraft Maintenance Engineer AME-M. Upon completion, this two year training program will provide up to 18 months credit towards the 48 months practical work experience required for certification, Work on vintage aircraft and helicopters to modern light aircraft and jet transports.

Students in the Aviation Technician – Aircraft Maintenance program will:

- Prepare for certification by Transport Canada as an Aircraft Maintenance Engineer AME-M
- Combine theory and practice using state-of-the-art facilities at Mohawk's Fennell and Stoney Creek (STARRT) campuses, and aircraft maintenance repair and overhaul facilities at the Hamilton International Airport
- Inspect vintage aircraft to modern light aircraft, heavy jet transports and helicopters
- Upon completion, this two year training program will provide up to 18 months credit towards the 48 months practical work experience required for certification.

AVIATION TECHNICIAN – AIRCRAFT STRUCTURES

Prepare for certification by Transport Canada as an Aircraft Maintenance Engineer AME-S. Upon completion, this two year training program will provide up to 12 months credit towards the 48 months practical work experience required for certification, Work on vintage aircraft and helicopters to modern light aircraft and jet transports.

Students in the Aviation Technician – Aircraft Structures program will:

- Prepare for certification by Transport Canada as an Aircraft Structures Engineer AME-S
- Combine theory and practice using state-of-the-art facilities at Mohawk's Fennell and Stoney Creek (STARRT) campuses, and aircraft maintenance repair and overhaul facilities at the Hamilton International Airport
- Work on vintage aircraft to modern light aircraft, heavy jet transports and helicopters
Program includes composites, NDE, welding, painting and refinishing
- Upon completion, this two year training program will provide 12 months credit towards the 48 months practical work experience required for certification.

ADMINISTRATION, FACULTY & SUPPORT STAFF – AVIATION

DEAN Tony Thoma, B.Sc., BBA, MBA, P. Eng.

ASSOCIATE DEAN Bill Brimley, Ph.D., P. Eng.

ADMIN ASST Linda Wilson

STAFF Melissa Schmidt

FULL TIME FACULTY (ADD Degrees Designations)

Mark Laurie
David Lapointe
Doug Winstanley
Shawn Hoyle

PART TIME FACULTY (ADD Degrees Designations)

James Goltz
Patrick Gorman
Stephen Sewell
Blaine Stafford
Joseph Zammuto
Stan Watkinson
Keith Anstey
Steve Rutledge
Derek proctor

POST-SECONDARY DIPLOMA AND CERTIFICATE PROGRAMS

The School of Aviation offers two-year diploma programs (Technician)

The **Technician** programs offered are:

Aviation Technician – Aircraft Maintenance - 269

Aviation Technician – Aircraft Structures - 289

269 AVIATION TECHNICIAN – AIRCRAFT MAINTENANCE PROGRAM OF STUDIES (POS)

Please refer to the appropriate Program website for your most recent POS.

Old PLA Codes
N-Not Eligible, C-Challenge, E-Portfolio
or Challenge, P-Portfolio, PC-
Combination of Portfolio and Challenge

Mohawk College Program of Studies (includes prerequisites and/or equivalents)

New PLA Codes
NE-Not Eligible, PCE-Challenge, PPA-Portfolio
Assessment, PPD-Portfolio Development Course, PAA-
Articulation Agreement, PDS-Demonstration

269 13-A Aviation Technician - Aircraft Maintenance Status-A Req. Grad GPA: 60

<u>Subj-Crse-Effective Term</u>	<u>Course Title</u>	<u>Crds</u>	<u>Promo Grade/Mode</u>	<u>Serv</u>	<u>Stat</u>	<u>Trns Crs</u>	<u>Type</u>	<u>Wks</u>	<u>Hrs</u>	<u>Total</u>	<u>Comments</u>	<u>PLA</u>
Sem 1 Semester Promotion GPA:												
Core Courses												
AMMM 10001	201330 Aircraft Electricity 1	5	50	1	N	A	<input type="checkbox"/>	Lec	17.00	2.00	34.00	
				1		A	<input type="checkbox"/>	Lab	17.00	2.50	42.50	
AMMM 10002	201330 Aircraft Eng & Aerodynamics	5	50	1	N	A	<input type="checkbox"/>	Lec	17.00	3.00	51.00	
				1		A	<input type="checkbox"/>	Lab	17.00	1.00	17.00	
AMMM 10003	201330 Basic Aircraft Structures 1	6	50	1	N	A	<input type="checkbox"/>	Lec	17.00	3.00	51.00	
				1		A	<input type="checkbox"/>	Lab	17.00	2.00	34.00	
AMMM 10004	201330 Basic Aircraft Systems	5	50	1	N	A	<input type="checkbox"/>	Lec	17.00	2.00	34.00	
				1		A	<input type="checkbox"/>	Lab	17.00	2.00	34.00	
AMMM 10005	201330 Intro to Aircraft Engines	5	50	1	N	A	<input type="checkbox"/>	Lec	17.00	2.00	34.00	
				1		A	<input type="checkbox"/>	Lab	17.00	2.00	34.00	
AMMM 10033	201330 Technical Publicatns/Documents	4	50	1	N	A	<input type="checkbox"/>	Lec	17.00	3.00	51.00	
COMM 10187	201330 Commun & Aviation Regulatns 1	2	50	1	N	A	<input type="checkbox"/>	Lec	17.00	2.00	34.00	
SAFES 10037	201230 H&S in Our Environment	2	50	1	Y	A	<input type="checkbox"/>	Lec	14.00	2.00	28.00	

**Promo Grade
Modes**

1-Credit - Percentage/Alpha
2-Credit - Requirements Met
3-Non Credit
4-For Exemption Only
5-Apprenticeship History
6-Percentage/Alpha-Wk/Tm

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269 13-A Aviation Technician - Aircraft Maintenance Status-A Req. Grad GPA: 60

Subj-Crse-Effective Term Course Title Crds Promo Grade/Mode Serv Stat Trig Crs Type Wks Hrs Total Comments PLA

Sem 2 Semester Promotion GPA:

Core Courses

APFD	10028	201310	Legacy of Flight in Canada	2	50	1	N	A	<input type="checkbox"/>	Lec	14.00	2.00	28.00	Gen Ed	
AMEM	10006	201410	Aircraft Electricity 2	6	50	1	N	A	<input type="checkbox"/>	Lec	18.00	2.50	45.00		
						1		A	<input type="checkbox"/>	Lab	18.00	2.50	45.00		
Prereqs: ENTerm - 201410 AMEM 10001 Aircraft Electricity															
AMEM	10008	201410	Basic Aircraft Structures 2	7	50	1	N	A	<input type="checkbox"/>	Lec	18.00	2.00	36.00		
						1		A	<input type="checkbox"/>	Lab	18.00	3.00	54.00		
Prereqs: ENTerm - 201410 (AMEM 10033 Technical Publicat And AMEM 10003) Basic Aircraft Struc															
AMEM	10010	201410	Materials and Composites	4	50	1	N	A	<input type="checkbox"/>	Lec	18.00	2.50	45.00		
						1		A	<input type="checkbox"/>	Lab	18.00	1.00	18.00		
Prereqs: ENTerm - 201410 (AMEM 10033 Technical Publicat And AMEM 10003) Basic Aircraft Struc															
AMEM	10034	201410	Aircraft Systems 1	5	50	1	N	A	<input type="checkbox"/>	Lec	18.00	2.00	36.00		
						1		A	<input type="checkbox"/>	Lab	18.00	2.00	36.00		
Prereqs: ENTerm - 201410 AMEM 10004 Basic Aircraft Syst															
AMEM	10035	201410	Aircraft Engines 1	4	50	1	N	A	<input type="checkbox"/>	Lec	18.00	2.00	36.00		
						1		A	<input type="checkbox"/>	Lab	18.00	1.00	18.00		
Prereqs: ENTerm - 201410 AMEM 10005 Intro to Aircraft Eng															

Promo Grade Modes	1-Credit - Percentage/Alpha	4-For Exemption Only
	2-Credit - Requirements Met	5-Apprenticeship History
	3-Non Credit	6-Percent/Alpha-Win/Tm

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Old PLA Codes
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269 13-A Aviation Technician - Aircraft Maintenance Status-A Req. Grad GPA: 60

Subj-Crse-Effective Term	Course Title	Crds	Promo Grade/Mode	Serv	Stat	Trig Crs	Type	Wks	Hrs	Total	Comments	PLA
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Sem 2 Semester Promotion GPA:

Core Courses

NDTB 10001	201030	Principles & Applications- NDT	2	50	1	Y	A	<input type="checkbox"/>	Lec	14.00	1.00	14.00
					1		A	<input type="checkbox"/>	Lab	14.00	1.00	14.00

Electives

OPBL XXXXX	200430	General Educ 1 Option Table	2	3	Y	A	<input type="checkbox"/>	Lec	13.00	2.00	26.00
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Promo Grade Modes	1-Credit - Percentage/Alpha 2-Credit - Requirements Met 3-Non Credit	4-For Exemption Only 5-Apprenticeship History 6-Percent/Alpha-Win/Tm
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Mohawk College Program of Studies

(includes prerequisites and/or equivalents)

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269 13-A Aviation Technician - Aircraft Maintenance Status-A Req. Grad GPA: 60

Subj-Crse-Effective Term Course Title Crd Promo Grade/Mode Serv Stat Trig Crs Type Wks Hrs Total Comments PLA

Sem 3 Semester Promotion GPA:

Core Courses

AMEM 10011	201330	Airframes 1	5	50	1	N	A	<input type="checkbox"/>	Lec	17.00	2.50	42.50	
					1		A	<input type="checkbox"/>	Lab	17.00	2.00	34.00	
									Prereqs:	ENTerm - 201330		AMEM 10033	Technical Publicat
										Or		AMEM 10000	Aircraft Drawings
AMEM 10012	201330	Aircraft Systems 2	10	50	1	N	A	<input type="checkbox"/>	Lec	17.00	5.00	85.00	
					1		A	<input type="checkbox"/>	Lab	17.00	3.00	51.00	
									Prereqs:	ENTerm - 201330		AMEM 10034	Aircraft Systems 1
										Or		AMEM 10007	Aircraft Hindg/Safe
AMEM 10014	201330	Gas Turbine Engines	6	50	1	N	A	<input type="checkbox"/>	Lec	17.00	3.00	51.00	
					1		A	<input type="checkbox"/>	Lab	17.00	2.00	34.00	
									Prereqs:	ENTerm - 201330		AMEM 10035	Aircraft Engines 1
										Or		AMEM 10009	Intro to Turbine En
AMEM 10015	201330	Reciprocating Engines 1	6	50	1	N	A	<input type="checkbox"/>	Lec	17.00	3.00	51.00	
					1		A	<input type="checkbox"/>	Lab	17.00	2.00	34.00	
									Prereqs:	ENTerm - 201330		AMEM 10035	Aircraft Engines 1
										Or		AMEM 10009	Intro to Turbine En
AMEM 10032	201330	Avionics Sys & Instrumentation	7	50	1	N	A	<input type="checkbox"/>	Lec	17.00	3.00	51.00	
					1		A	<input type="checkbox"/>	Lab	17.00	3.00	51.00	
									Prereqs:	ENTerm - 201330		AMEM 10006	Aircraft Electricity 2

Promo Grade Modes

1-Credit - Percentage/Alpha
2-Credit - Requirements Met
3-Non Credit
4-For Exemption Only
5-Apprenticeship History
6-Percent/Alpha-With Trm

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Mohawk College Program of Studies

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269 13-A Aviation Technician - Aircraft Maintenance Status-A Req. Grad GPA: 60

Subj-Crse-Effective Term Course Title Crd Promo Grade/Mode Serv Stat Trig Crs Type Wks Hrs Total Comments PLA

Sem 4 Semester Promotion GPA:

Core Courses

AMEM 10016	201410	Airframes 2	4	50	1	N	A	<input type="checkbox"/>	Lec	18.00	1.50	27.00	
					1		A	<input type="checkbox"/>	Lab	18.00	2.00	36.00	
									Prereqs:	ENTerm - 201410		AMEM 10011	Advanced Aircraft
AMEM 10017	201410	Aircraft Inspection	4	50	1	N	A	<input type="checkbox"/>	Lec	18.00	1.00	18.00	
					1		A	<input type="checkbox"/>	Lab	18.00	2.50	45.00	
									Prereqs:	ENTerm - 201410	(NOTE 10001	Principles & Applic
											And	AMEM 10033) Technical Publicat
AMEM 10018	201410	Aircraft Maintenance	4	50	1	N	A	<input type="checkbox"/>	Lec	18.00	2.00	36.00	
					1		A	<input type="checkbox"/>	Lab	18.00	1.00	18.00	
									Prereqs:	ENTerm - 201410		AMEM 10033	Technical Publicat
AMEM 10019	201410	Avionics Syst & Instrumentn 2	6	50	1	N	A	<input type="checkbox"/>	Lec	18.00	2.50	45.00	
					1		A	<input type="checkbox"/>	Lab	18.00	2.00	36.00	
									Prereqs:	ENTerm - 201410		AMEM 10032	Avionics Sys & Ins
AMEM 10020	201410	Propellers	4	50	1	N	A	<input type="checkbox"/>	Lec	18.00	2.50	45.00	
					1		A	<input type="checkbox"/>	Lab	18.00	1.00	18.00	
									Prereqs:	ENTerm - 201410		AMEM 10005	Intro to Aircraft Eng
AMEM 10021	201410	Reciprocating Engines 2	6	50	1	N	A	<input type="checkbox"/>	Lec	18.00	2.50	45.00	
					1		A	<input type="checkbox"/>	Lab	18.00	2.00	36.00	
									Prereqs:	ENTerm - 201410		AMEM 10015	Reciprocating Eng

Promo Grade Modes

1-Credit - Percentage/Alpha	4-For Exemption Only
2-Credit - Requirements Met	5-Apprenticeship History
3-Non Credit	6-Percent/Alpha-Win/Tm

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August-23-13

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Mohawk College Program of Studies
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269 13-A Aviation Technician - Aircraft Maintenance Status-A Req. Grad GPA: 60

Subj-Crse-Effective Term Course Title Crd Promo Grade/Mode Serv Stat Trig Crs Type Wks Hrs Total Comments PLA

Sem 4 Semester Promotion GPA:

Core Courses

COMM 10188	201410	Commun & Aviation Regulatrns 2	3	50	1	N	A	<input type="checkbox"/>	Lec	18.00	2.00	36.00		
Prereqs:										EFFTerm - 201410		COMM 10187	Commun & Aviatio	
COMM 10265	201410	Critical & Innovative Thinking	2	50	1	Y	A	<input type="checkbox"/>	Lec	14.00	2.00	28.00	COMM10034 Replacmnt	
Prereqs:										EFFTerm - 201410		COMM 11040	Communication D	
												Or	COMM LLD41	Communications (
												Or	COMM LLD44	AC - Communicati
												Or	COMM 10187	Commun & Aviatio
												Or	COMM 10288	Written Comm for

**Promo Grade
Modes**

1-Credit - Percentage/Alpha
 2-Credit - RequirementsMet
 3-Non Credit
 4-For Exemption Only
 5-Apprenticeship History
 6-Percent/Alpha-WritTrm

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289 AVIATION TECHNICIAN – AIRCRAFT STRUCTURES PROGRAM OF STUDIES (POS)

Please refer to the appropriate Program website for your most recent POS.

Old PLA Codes
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Combination of Portfolio and Challenge

Mohawk College Program of Studies (includes prerequisites and/or equivalents)

New PLA Codes
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289 13-A Aviation Technician - Aircraft Structures Status-A Req. Grad GPA: 60

Subj-Crse-Effective Term Course Title Crds Promo Grade/Mode Serv Stat TrigCr Type Wks Hrs Total Comments PLA

Sem 1 Semester Promotion GPA: 60

Core Courses

AMMM	10001	201330	Aircraft Electricity 1	5	50	1	N	A	<input type="checkbox"/>	Lec	17.00	2.00	34.00
									<input type="checkbox"/>	Lab	17.00	2.50	42.50
AMMM	10002	201330	Aircraft Eng & Aerodynamics	5	50	1	N	A	<input type="checkbox"/>	Lec	17.00	3.00	51.00
									<input type="checkbox"/>	Lab	17.00	1.00	17.00
AMMM	10003	201330	Basic Aircraft Structures 1	6	50	1	N	A	<input type="checkbox"/>	Lec	17.00	3.00	51.00
									<input type="checkbox"/>	Lab	17.00	2.00	34.00
AMMM	10004	201330	Basic Aircraft Systems	5	50	1	N	A	<input type="checkbox"/>	Lec	17.00	2.00	34.00
									<input type="checkbox"/>	Lab	17.00	2.00	34.00
AMMM	10005	201330	Intro to Aircraft Engines	5	50	1	N	A	<input type="checkbox"/>	Lec	17.00	2.00	34.00
									<input type="checkbox"/>	Lab	17.00	2.00	34.00
AMMM	10033	201330	Technical Publicatns/Documents	4	50	1	N	A	<input type="checkbox"/>	Lab	17.00	3.00	51.00
COMM	10187	201330	Commun & Aviation Regulatns 1	2	50	1	N	A	<input type="checkbox"/>	Lec	17.00	2.00	34.00
SAFES	10037	201230	H&S in Our Environment	2	50	1	Y	A	<input type="checkbox"/>	Lec	14.00	2.00	28.00

Promo Grade
Modes

1-Credit - Percentage/Alpha
2-Credit - RequirementsMet
3-Non Credit
4-For Exemption Only
5-Apprenticeship History
6-PercentAlpha-Win7rm

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August-23-13

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Sem 2 Semester Promotion GPA: 60

Core Courses

APFD	10028	201310	Legacy of Flight in Canada	2	50	1	N	A	<input type="checkbox"/>	Lec	14.00	2.00	28.00	
AMEM	10008	201410	Basic Aircraft Structures 2	7	50	1	N	A	<input type="checkbox"/>	Lec	18.00	2.00	36.00	
										Lab	18.00	3.00	54.00	
										Prereqs: ENTerm - 201410 (AMEM 10033 Technical Publicat And AMEM 10003) Basic Aircraft Stru				
AMEM	10010	201410	Materials and Composites	4	50	1	N	A	<input type="checkbox"/>	Lec	18.00	2.50	45.00	
										Lab	18.00	1.00	18.00	
										Prereqs: ENTerm - 201410 (AMEM 10033 Technical Publicat And AMEM 10003) Basic Aircraft Stru				
AMEM	10011	201330	Airframes 1	5	50	1	N	A	<input type="checkbox"/>	Lec	18.00	2.50	45.00	
										Lab	18.00	2.00	36.00	
										Prereqs: ENTerm - 201330 AMEM 10033 Technical Publicat Or AMEM 10000 Aircraft Drawings				
AMEM	10030	201410	Painting & Refinishing	4	50	1	N	A	<input type="checkbox"/>	Lec	18.00	1.00	18.00	
										Lab	18.00	2.00	36.00	
AMEM	10034	201410	Aircraft Systems 1	5	50	1	N	A	<input type="checkbox"/>	Lec	18.00	2.00	36.00	
										Lab	18.00	2.00	36.00	
										Prereqs: ENTerm - 201410 AMEM 10004 Basic Aircraft Syst				
MATH	10059	201230	NDE Mathematics	3	50	1	N	A	<input type="checkbox"/>	Lec	14.00	3.00	42.00	

Promo Grade Modes

1-Credit - Percentage/Alpha
2-Credit - Requirements/Met
3-Non Credit
4-For Exemption Only
5-Apprenticeship History
6-Percent/Alpha-Win/Tm

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Old PLA Codes
 N-Not Eligible, C-Challenge, E-Portfolio
 or Challenge, P-Portfolio, PC-
 Combination of Portfolio and Challenge

Mohawk College Program of Studies
(includes prerequisites and/or equivalents)

New PLA Codes
 NE-Not Eligible, PCE-Challenge, PPA-Portfolio
 Assessment, PPD-Portfolio Development Course, PAA-
 Articulation Agreement, PDE-Demonstration

289 13-A Aviation Technician - Aircraft Structures Status-A Req. Grad GPA: 60

<u>Subj-Crse-Effective Term</u>	<u>Course Title</u>	<u>Crd</u>	<u>Promo Grade/Mode</u>	<u>Serv</u>	<u>Stat</u>	<u>Trig Crs</u>	<u>Type</u>	<u>Wks</u>	<u>Hrs</u>	<u>Total</u>	<u>Comments</u>	<u>PLA</u>
Sem 2 Semester Promotion GPA: 60												
Core Courses												
NDTB 10001 201030	Principles & Applications- NDT	2	50	1	N	A	<input type="checkbox"/>	Lec	14.00	1.00	14.00	
				1		A	<input type="checkbox"/>	Lab	14.00	1.00	14.00	

Promo Grade Modes	1-Credit - Percentage/Alpha	4-For Exemption Only
	2-Credit - Requirements Met	5-Apprenticeship History
	3-Non Credit	6-Percent/Alpha-Win/Tm

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289 13-A Aviation Technician - Aircraft Structures Status-A Req. Grad GPA: 60

Subj-Crse-Effective Term	Course Title	Crd	Promo Grade/Mode	Serv	Stat	Trig Crs	Type	Wks	Hrs	Total	Comments	PLA
Sem 3 Semester Promotion GPA: 60												
Core Courses												
AMEM 10022	201310 Damage Assess & Repair-SM	8	50	1	N	A	<input type="checkbox"/>	Lec	17.00	1.00	17.00	
				1		A	<input type="checkbox"/>	Lab	17.00	5.50	93.50	
								Prereqs:	EffTerm - 201310	AMEM 10008	Basic Aircraft Stru	
AMEM 10025	201320 Fluids & Sealants	1	50	1	N	A	<input type="checkbox"/>	Lab	17.00	1.00	17.00	
AMEM 10026	201320 Corrosion Prevention & Control	7	50	1	N	A	<input type="checkbox"/>	Lec	17.00	1.00	17.00	
				1		A	<input type="checkbox"/>	Lab	17.00	3.50	59.50	
AMEM 10029	201430 Tubes, Spars & Struts	5	50	1	N	A	<input type="checkbox"/>	Lec	17.00	1.00	17.00	
				1		A	<input type="checkbox"/>	Lab	17.00	3.50	59.50	
NDTE 10013	201330 NDT Techniques	9	50	1	N	A	<input type="checkbox"/>	Lec	14.00	7.00	98.00	
				1		A	<input type="checkbox"/>	Lab	14.00	2.00	28.00	
								Prereqs:	EffTerm - 201330	(MATH 10059 NDE Mathematics		
									And	NOTE 10001) Principles & Applic		
Electives												
OPML XXXXX	200430 General Educ 1 Option Table	2	3	Y	A	<input type="checkbox"/>	Lec	13.00	2.00	26.00		

Promo Grade
Modes

1-Credit - Percentage/Alpha
2-Credit - Requirements Met
3-Non Credit
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5-Apprenticeship History
6-Percentage/Alpha-With Term

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Mohawk College Program of Studies

(includes prerequisites and/or equivalents)

New PLA Codes
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289 13-A Aviation Technician - Aircraft Structures Status-A Req. Grad GPA: 60

Subj-Crse-Effective Term Course Title Crd Promo Grade/Mode Serv Stat Trig Crs Type Wks Hrs Total Comments PLA

Sem 4 Semester Promotion GPA: 60

Core Courses

AMEM 10023	201410	Composite Fabrication	6	50	1	N	A	<input type="checkbox"/>	Lec	18.00	1.00	18.00	
					1		A	<input type="checkbox"/>	Lab	18.00	3.50	63.00	
									Prereqs:	ENTerm - 201410		AMEM 10010	Materials and Cor
AMEM 10024	201410	Damage Assess & Repair- Comp	4	50	1	N	A	<input type="checkbox"/>	Lec	18.00	1.00	18.00	
					1		A	<input type="checkbox"/>	Lab	18.00	2.50	45.00	
									Prereqs:	ENTerm - 201410		AMEM 10010	Materials and Cor
AMEM 10027	201320	Damage Assessment & Repair-PL	3	50	1	N	A	<input type="checkbox"/>	Lab	18.00	2.00	36.00	
AMEM 10028	201510	Wood & Fabric- Damage & Repair	3	50	1	N	A	<input type="checkbox"/>	Lab	18.00	2.50	45.00	
COMM 10188	201410	Commun & Aviation Regulatrns 2	3	50	1	N	A	<input type="checkbox"/>	Lec	18.00	2.00	36.00	
									Prereqs:	ENTerm - 201410		COMM 10187	Commun & Aviatio
COMM 10265	201410	Critical & Innovative Thinking	2	50	1	Y	A	<input type="checkbox"/>	Lec	14.00	2.00	28.00	COMM10034 Replacmnt
									Prereqs:	ENTerm - 201410		COMM 11040	Communication D
										Or		COMM LL041	Communications (
										Or		COMM LL044	AC - Communicati
										Or		COMM 10187	Commun & Aviatio
										Or		COMM 10288	Written Comm for

Promo Grade Modes

1-Credit - Percentage/Alpha
2-Credit - Requirements Met
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6-Percentage/Alpha-With Trm

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<u>Subj-Crse-Effective Term</u>	<u>Course Title</u>	<u>Crd</u>	<u>Promo Grade/Mode</u>	<u>Serv</u>	<u>Stat</u>	<u>Trig Crs</u>	<u>Type</u>	<u>Wks</u>	<u>Hrs</u>	<u>Total</u>	<u>Comments</u>	<u>PLA</u>
Sem 4 Semester Promotion GPA: 60												
Core Courses												
NDTB 10014	201410 Advanced NDT Techniques	8	50	1	N	A	<input type="checkbox"/>	Lec	14.00	4.00	56.00	
				1		A	<input type="checkbox"/>	Lab	14.00	4.00	56.00	
								Prereqs:	ENTerm - 201410			NOTE 10013 NDT Techniques
WBILD 10064	201510 Welding (Gas,Stick,Mig/Tig)	4	50	1	N	A	<input type="checkbox"/>	Lec	18.00	1.00	18.00	
				1		A	<input type="checkbox"/>	Lab	18.00	2.50	45.00	

Promo Grade Modes	1-Credit - Percentage/Alpha	4-For Exemption Only
	2-Credit - Requirements Met	5-Apprenticeship History
	3-Non Credit	6-Percentage/Alpha-Win/Tm

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PROGRAM PREREQUISITES

The above course prerequisites will apply to all students enrolled in programs within the School of Aviation. It is the responsibility of the student to be aware of these prerequisites and to make arrangements for repeating any failed courses in consultation with their academic coordinator as required.

AVIATION STUDENT EVALUATION AND GRADING

This program is Approved by Transport Canada, and Nationally Accredited by the Canadian Council of Aviation and Aerospace (CCAA). In order to receive their diploma students must complete the entire program of studies with a minimum grade in each and every Aviation course of 70% and 95% attendance. This exempts them from having to write all the Transport Canada exams with the exception of the CARs exam, and provides them from 12 to 18 months of equivalent work experience toward the Transport Canada requirement of 48 months for licensure.

The grading system for all the other non-Aviation courses employs the common passing grade level of 50% for all courses. Other grade designations which the student might encounter include the following:

AC	Attendance Complete
AN	Attendance Not Met
AU	Course Audit
CR	Credit Granted (Prior Learning Assessment)
E	Exemption Granted
I	Incomplete
R	Requirements Complete
UW	Unofficial Withdrawal

It is the responsibility of the student to be aware of various policies and procedures governing the School of Aviation.

HONOURS SYSTEM

There are two separate honours designations used by the College. A Dean's Honours list is published at the end of each semester and contains the names of full-time students who have achieved an overall standing of at least 85.0% with no failing grades at the end of each academic semester. A congratulatory letter is sent to the student from the Dean and Associate Dean in each semester in which the student qualifies.

At the completion of a program of study, students who have an overall standing of at least 85% with no failing grades will qualify for Honours Graduate status. Honours Graduates are announced at Convocation and they will receive a congratulatory letter from the College along with an attachment for the diploma.

For further information on the Honours System and Student Evaluation and Grading please contact the Registration Center at (905) 575-2364.

Student Code of Conduct

Students in the School of Aviation are expected to act in a responsible and professional manner at all times. The policies outlined below augment Mohawk College's well-defined policies regarding classroom and laboratory behavior and academic dishonesty. These policies are outlined on the Mohawk College website at www.mohawkcollege.ca

Electronics Policies

1. Students should have their cell phones turned off or turned to vibrate mode at all times in classroom and laboratory settings. If there are circumstances which require a cell phone to be left on, students are required to inform the instructor ahead of time and respond in a respectful manner should the cell phone ring.
2. All audio and video devices, including camera cell phones, should be turned off in classroom and laboratory settings.
3. The use of laptop computers in the classroom is at the discretion of the professor. When laptop computers are being used it is expected that they are being used in an appropriate manner and for academic purposes only.

Email and College Interaction Policies

1. Students are expected to use email in an appropriate, respectful and professional manner.
2. Students are expected to check their eLearn and Mocomotion email accounts on a regular basis as this is the primary manner in which they will be contacted by Mohawk College and their professors.
3. Students who are absent from tests and/or laboratories are required to inform their professors by telephone and/or by email prior to the starting time of the test or laboratory. Students who fail to do so may forfeit the test and/or the lab.

Attendance Policy

Students in the Aviation Technician programs must attend 95% of all scheduled lecture and laboratory sessions.

Lecture Attendance

Attendance at all scheduled lectures is expected and highly recommended. Some courses have a lecture attendance evaluation component; most courses do take attendance during lecture sessions. It is the student's responsibility to access all material covered if they miss a lecture. If attendance is part of the course evaluation students need to show appropriate documentation for their absence not to affect their grade.

Laboratory Attendance

Laboratory attendance is mandatory in all courses that contain a laboratory component. For some courses, successful completion of the course requires complete attendance. Absence from a laboratory requires appropriate documentation. Students missing a laboratory must notify their laboratory instructor immediately. Once documentation has been established students are expected to make up a missed laboratory if at all possible.

To successfully complete the laboratory component of a course submission of all laboratory reports is required.

POLICY FOR WRITING OF TESTS

1. Each student is required to write tests at the time and place scheduled, unless alternative arrangements have been **previously agreed between the student and the professor** to cover exceptional circumstances. Students with special needs must follow College policy, and inform the professor of their requirements in good time for the arrangements to be made.
2. Students who become ill too close to the test time to make the above arrangements are required to do the following:



telephone the professor **at the earliest opportunity**. This contact should be made **before** the time of the test, and **no later than the next working day** if the test is held in the evening. Messages left on answering machines must include the date and time of the call, the student's name, class and number.



contact the professor as soon as possible after the illness. A doctor's note **must** be produced at this time.

3. Students who are prevented from attending due to last minute emergencies must contact the professor as described in the previous section. The professor will require details of the emergency situation.
4. Students who fail to appear to write a test without proceeding in accordance with the above will be considered "absentees". No re-write privileges will be allowed in these cases, and the grade for that test will be zero.
5. Writing the test at an alternative time will be allowed if the professor is satisfied that the reason is genuine, and if the student has correctly followed the above procedures. The arrangements are to be made between the professor and the student, and include the following conditions:
 - tests may be scheduled in the Math Learning Centre
 - the test questions may be changed;
 - the method of grading of the test may be changed;
 - the time, place and format of any re-scheduled test will be decided by the professor;
 - the same rules of attendance apply to the re-scheduled test as to the original test;
 - the decision of the professor in setting these conditions will be final.

STUDENT RULES OF CONDUCT EXAMINATIONS AND TESTS

In this document the term "test" is intended to include both "tests" and examinations"; the term "invigilator" is meant to include any person authorized to supervise or conduct tests, that is, proctors, professors, support staff, etc.

1. Students must be aware of the College's policy on Academic Dishonesty.
2. It is the responsibility of the student to be aware of the place, starting time, and duration of all tests as well as the rules of conduct, which govern them.
3. Only eligible students and authorized invigilators are allowed access to the testing facility.
4. Students must display their student identification cards in a conspicuous place on their test station.

Students without a valid student identification card will not be permitted to write a test. (This condition may be waived at the invigilator's discretion.)
Students may be required to sign a test attendance record.

5. Invigilators are authorized to assign specific test stations to students.
6. Students are expected to arrive at the testing facility at least five (5) minutes before the scheduled start time of the test.

Students will not normally be permitted to enter the testing facility unless authorized to do so by the invigilator.

7. No materials and equipment, including cell phones, computers, calculators, may be taken into the testing facility except when authorized by the invigilator and/or specified by the test paper.

(It is the responsibility of the student to be aware of the type and nature of resources that are allowed inside the testing facility).

Invigilators are authorized to inspect all equipment and materials used inside a testing facility and, if deemed appropriate, reset calculators.

8. Students who bring unauthorized resources into a testing facility, who assist other students, who obtain assistance from other students or any other unauthorized source, may not be permitted to complete the test. They may also be subject to further disciplinary action under the College's Academic Dishonesty Policy.

During test, students must not communicate with one another in any way.

9. Students will not be permitted access to a testing facility if a) the test has been in progress for more than thirty (30) minutes, or b), if one or more students have already left the testing facility. (Under special circumstances, the invigilator may waive this condition).

Students are not permitted to leave the testing facility during the first thirty (30) minutes of a test. If students are late for a test, they must complete their test in the remaining designated time, unless the invigilator authorizes an extension.

10. In cases of emergency, students leaving and returning to a testing facility must be accompanied by an invigilator, unless the invigilator waives this requirement.

11. **Students must enter and leave a testing facility QUIETLY.**

After leaving the testing facility, students must not remain in the immediate vicinity of the exit.

12. It is the student's responsibility to ensure that he or she has received the correct test paper and that the document contains the correct number of pages and questions.

Students must follow all instructions as contained in the test paper. Any changes to such instructions, if required, will be communicated by the invigilator.

13. At the conclusion of a test, all testing activity must cease. If this requirement is not observed, the invigilator may refuse to accept a student's test paper. A student must ensure that all test materials to be graded are, in fact, submitted at the end of the test and contain the student's name. An examiner is under no obligation to accept or grade test materials that a student has removed without authorization from the testing facility.

14. Alternative Testing Services provide disabled students with the opportunity to meet regular academic requirements while preserving the integrity of the testing process. Disability Services is governed by regular college policies and the Alternative Testing Service will operate in accordance with the Faculty's **Rules of Conduct** policy for testing, and the College's **Academic Dishonesty** policy. Students with disabilities are required to identify themselves to the Disability Office where the Special Needs Consultant will recommend alternative testing arrangements, where appropriate. **Please refer to the alternative Test/Examination procedure for students with disabilities (available through Student Services).**

SAFETY POLICY

The Associate Dean, Faculty and Support Staff of the School Aviation are committed to providing a safe and healthy laboratory learning environment for students, faculty and support staff. All levels of School (including students) actively support and participate in their functions related to the health and safety of both fellow employees and students.

Experimental work in laboratories is designed to minimize the risk of accidents and health hazards. However, the handling of chemicals, molten metals, glassware, grinders and other equipment in the laboratories inevitably poses some potential hazards, especially in the event of the accidental spillage, breakage, etc. Since such accidents cannot be foreseen, it is important that you protect yourself from the consequences. The basis of all your actions in a workplace is to use common sense and to think before you act. Although it is impossible to eliminate 100% of the risks, the school has developed the following practices, procedures and rules to ensure a high measure of safety to prevent accidents and injuries. The Management, Faculty, Support Staff and **all** students are required to fulfill their responsibilities and obligations described in this document.

General Information

Members of School of Aviation and students will:

1. Apply the knowledge and commit to memory the practices, procedures and rules contained in this manual.
2. Know where the nearest telephone or intercom device is located.
3. Know and understand the floor plans of laboratories in School . In particular you must know the location and use of:
 - a) Fire Extinguisher Information
 - b) Safety Shower
 - c) Eye Wash Station
 - d) Electrical Shut-off
 - e) Fire Exit Route
 - f) Material Safety Data Sheets (MSDS)
 - g) First Aid
4. Learn the WHMIS (Workplace Hazardous Materials Information System) classification system outlined in the following pages of this document. In particular you must read, understand and follow the MSDSs, labels, hazards, safe handling procedures and emergency action for classes A, B, C, D¹ and D², E and F.
5. Use the WHMIS classification and labelling system and MSDSs in all laboratories.
6. Be prepared to take appropriate action in an emergency.

SAFETY RULES

1. General Rules

2. The following rules, practices and procedures are common for all of the laboratories in the School

3. **Back packs, school bags and coats are NOT ALLOWED in the laboratory. All personal belongings that are not pertinent to the lab must be left in a locker.**

4. Protective Clothing

- a. In order to have adequate protection of legs and feet we require that pants (ankle-length) and closed shoes, without high heels, be worn in all laboratories.
- b. Steel Toe safety shoes are required
- c. Hats and ball caps are NOT permitted in department laboratories.
- d. The use of earphones or ear buds are not permitted in department laboratories

5. Eye Protection

All students must purchase and wear a pair of CSA (Canadian Standards Association), and department, approved **safety goggles or** Department approved **safety glasses**. These will be required for experimental work as directed by the faculty member in charge of the laboratory session. If you wear prescription glasses, you **must** wear the approved safety goggles. Approved safety goggles and safety glasses are available from the Fennell Campus Bookstore.

No contact lenses are allowed in the laboratory. Students and faculty with contact lenses will be required to wear corrective glasses and safety goggles or safety glasses over their prescription glasses.

People wearing corrective glasses must wear approved safety goggles or safety glasses at all times.

Some experiments require the use of face shields. These will be supplied by the Department of Chemical and Environmental Technology.

Eye protection must be worn at all times in a laboratory even when non-laboratory work is being performed. This includes time inside and outside regular scheduled laboratory time, regular class time (including if the laboratory is used as a lecture room) and would, for instance, still apply for all computer interfacing laboratories, or if a laboratory over-ran its normal time, or if technical report or project work was being performed.

(STUDENTS WHO DO NOT COMPLY WITH THIS RULING WILL BE TOLD TO LEAVE THE LABORATORY.)

6. Air Lines

The air lines in all laboratories must never be used to dry glassware. These lines contain oil and/or greases, which will contaminate your glassware and analysis. More importantly, serious personal injury could occur if the glassware fractured.

7. Fire Alarms

- a. The Fire Alarm is a single stage alarm which means that when the alarm sounds evacuation of the building is required. Leave the laboratory in a safe state by turning off all burners and other equipment. Close all supply taps at the central shut off station near the doors and shut off the electrical supply. Go quickly and calmly to the nearest exit and leave the building by the most direct route. Do NOT use the elevator. Take up a position outside and away from the building. Remain outside or in a sheltered location until an All Clear is given by Emergency Officials, Security or Fire Wardens.
- b. **If you discover a fire:**
Evacuate persons in immediate danger and close the door if possible. Go to the nearest fire alarm station and sound the alarm. Small fires may be smothered with an inverted beaker or damp paper towels. Fire extinguishers are located in the laboratories. To use the fire extinguisher, take it down, pull the safety pin and point the nozzle at the base of the fire from about three arm lengths away. Squeeze the handle and direct the flow of gas towards the base of the fire. If the fire is not easily put out within a few seconds, leave the laboratory and report the fire to security at ext. 55 or call 911. Never put yourself in danger!
- c. **Lockdown Procedures:**
An internal or external lockdown will be ordered upon identification or notification of a threatening situation. The lockdown will be communicated by a pre-recorded message played over the building speaker system. In the laboratory turn off all burners and other equipment and close any supply taps. Secure doors, turn out lights and remain quiet and out of sight. The end of a lockdown situation will be communicated by a recorded 'all clear' announcement.

8. Electrical Equipment.

- a) Inspect the apparatus to be sure wires and other electrical components are not frayed, loose or broken.
- b) The bench top area on which the apparatus will be used must be dry.
- c) All electrical heating devices must be in an area free of flammable liquids, vapours or open containers of flammable liquids.
- d) Turn power switches on the apparatus to the **OFF** position before plugging into an outlet.
- e) No electrical device can be operated with wet hands.
- f) Do not attempt to repair an electrical device without approval of the technologist. Replace a burned-out fuse with a proper fuse. If a fuse burns out find the cause. **Never** replace a fuse with a penny or a nail. **Never** use an oversized fuse.
- g) All apparatus using 115V supply must be connected with a 3-line cord and safely grounded.

- h) Any paint or other coating (e.g., rust) must be removed from the surface that is to be grounded.
- i) The grounding wire should be continuous (i.e., no joins).
- j) Leave enough slack in the ground line so that it will not be put under tension.
- k) There should be no exposed conductors that carry a voltage in excess of 30V.
- l) If you are to work on any electrical circuit always disconnect the apparatus from its power source. Do not just turn off its switch.
- m) Never jerk plugs from their outlet by pulling on the cord, always grasp the body of the plug and pull straight out.

9. **Electric Shock**

- a. Never touch a victim of electric shock until the electric power is shut off by the red button on the wall or at the main electric power panel.

10. **All hair that is longer than shoulder length must be tied back so that it cannot fall forward and possibly catch on fire.**

11. Students are not allowed entry to a laboratory except for students in an authorized class(s), and no unauthorized "visitors" are allowed in any laboratory.

12. **No student will work in a laboratory unsupervised.** All students must obtain permission from a faculty member and a technologist to work in a laboratory outside of scheduled hours. No unauthorized experiments or procedures are allowed in any laboratory.

13. No **HORSEPLAY** in a laboratory. **Horseplay and vandalism are not tolerated under any circumstances in the laboratory.** Such action will result in immediate removal from the laboratory and possible suspension from the program.

14. Your work area must be well organized and uncluttered.

15. No eating, drinking or smoking in any laboratory. Never taste or purposely inhale the fumes or dust of any chemical. Always use a fume hood.

16. You must wash your hands thoroughly at the end of a laboratory period and before eating, drinking or smoking.

17. Report all cuts, burns or accidental swallowing of chemicals, and breakages of all kinds to your professor and/or technologist. Go to the nearest first aid station (see the floor plans in the last section of this document).

18. For burns or chemicals spilled on skin, prolonged washing with copious amount of water for five (5) minutes or more may be necessary. Use cold running water and get the

affected part under the tap immediately and ask for help from a professor or technologist.

19. When your experiment is finished, all services such as gas, water, and electricity (including computers on carts) must be turned off. All equipment, reagent bottles and glassware, etc. must be returned to their proper storage cabinets, and all surfaces (e.g., laboratory bench tops and fume hoods) must be cleaned before leaving the laboratory.
20. If any piece of laboratory equipment is not operating properly then electrical power must be cut and a prominent notice describing the problem must immediately be placed on the apparatus.
21. Report any malfunction of an instrument to the professor or technologist in charge of a lab. Do not attempt to repair or use an instrument that appears to be working improperly.
22. Students are responsible for all equipment issued to them. Breakage must be reported to the professor or technologist.

23. **Waste Disposal**

- a. You must know the waste disposal procedures for the laboratory that you are in.
DO NOT put solids or water-immiscible liquids down a sink. Use containers provided in the fume hoods or ask your professor or technologist how to dispose of a waste chemical.

- b. **Mercury (Hg) Spills/Broken Thermometers**

- a) Notify faculty or technologist immediately.
- b) Obtain first-aid treatment if required.
- c) Clean-up Procedure
- d) When mercury (Hg) spills it breaks into very small droplets that can travel quickly possibly contaminating a large area. The clean up must always be prompt and thorough

- c. Containment

- a) Put on a pair of protective gloves.
- b) Isolate the spill quickly to the area affected.
- c) Minimize any movement, which may spread the spill, within the isolated area.
- d) Prevent bench spills from falling to the floor.

- d. Physical Collection

- e. Remove broken glass from the area and place in a beaker.
- f. Collect all the small droplets into **one** larger drop by directing them slowly with a piece of non-absorbent smooth paper, spatula or scoopula.
- g. Scoop up the mercury (Hg) drop into a beaker and transport it and the contaminated glass to the Waste mercury (Hg) Storage Area (E305A)

- h. If mercury (Hg) collects in difficult location the droplets will be collected by vacuum aspiration (see technologist for equipment). It may be necessary to treat any suspected remaining contamination with an appropriate compound to form an amalgam (see technologist for details).
24. Do not use an air line to blow dust off of your clothes, face or hands, or to cool or dry glassware.

25. Laboratory Specific

26. The following practices, procedures and rules are unique for the laboratories of a specific discipline.

27. Chemistry/Metallurgy Laboratories

28. The laboratories covered in this section are: E030, E306 (only when there are experiments using chemicals).
29. Many experiments require the use of fume hoods. You must understand the proper use of a fume hood and keep all fume hoods clean and tidy.
30. Use of Bunsen burners are restricted in many laboratories. Be sure that it is safe to light before doing so.
31. Laboratory E030 is a spark proof area. As such, all open flames such (e.g., Bunsen burners) are not allowed.
32. Transfer of chemicals. Be sure that you transfer all liquids (e.g., solvents) into the proper container. All transfer of solvents from large properly grounded safety cans to small reagent containers must be done in a fume hood. Transfer of chemicals (mainly solids) to be weighed must be done at a Top Loading balance only. Final measurement must be done at an Analytical balance. **(NO TRANSFER OF CHEMICALS WILL OCCUR AT AN ANALYTICAL BALANCE.)** Any spill of a chemical (liquid or solid) must be cleaned up immediately.
33. It is the policy of the School of Aviation to implement the three Rs (reduce, reuse and recycle) for a safe environment. All laboratory activities are continually being revised to reduce waste, reuse chemicals (where possible) and recycle (e.g., organic solvents). However, when waste does occur, all waste organic chemicals must be disposed of in the appropriate container.
- a. For example, chemicals with oxygen (O₂) must be disposed of in waste containers labelled with oxygen (O₂) and chemicals without oxygen (O₂) must be disposed of in another waste container labelled without oxygen (O₂). Other waste containers may be labelled as ethers, metals or potassium permanganate etc. Also, individual experiments and laboratories may have unique disposal procedures. You **MUST NOT** dispose of a chemical in the wrong container. If

you are unsure of a disposal procedure for a particular waste chemical always check with a faculty member or a technologist before disposal.

34. No pipetting by mouth is allowed in any laboratory. You **MUST** use a pipet bulb.
35. Label all containers that you are using with the name and concentration of the **chemical**, and if it is hot it must be clearly identified as **HOT**. You must know and understand all WHMIS symbols and hazards.
36. Keep fume hoods clutter free and clean. (N.B., Do not leave samples in a fume hood unattended or when it is not necessary for the sample to be in a fume hoods.)
37. Clean up all chemical spills (e.g., solvents, solids or aqueous solutions) immediately.
38. Clean up all broken glass immediately (use brush and dust pan provided). Dispose of broken glass **only** in the appropriate broken glass container.
39. Know the location of the eye wash fountain in every laboratory. Proper use of an eye wash fountain require the flushing of an eye for 15 minutes minimum with copious amounts of water while holding your upper and lower eyelids away from the eyeball and rolling eyes while washing affected eye.
40. While working with vacuum systems, be aware of the possibility of an **implosion**.
 - a. **NOTE:** your professor will give specific precautions.
41. While working with pressurized systems, be aware of the possibility of an **explosion**.
42. Volatile flammable liquids must not be stored in ordinary refrigerators that have not been made explosion proof.
43. All used sample vials must be returned to the appropriate collection container.
44. All high-pressure cylinders must be secured and handled according to the WHMIS Worksite Specific instructions described in the Compressed Gases (Safe Handling Procedures) section of this document.

Physics/Metrology/Automation Laboratories

The laboratories covered in this section are: E029,E03.

1. Lab coats and safety glasses are required in the physics labs
2. Avoid direct viewing of any light or laser source.
3. All the radiation sources used in this laboratory are of very low level, however, prolonged contact and exposure should be avoided.

CINDE Laboratories

The laboratories covered in this section are: A028 and any others where NDE techniques are required.

- a. Disposable laboratory coats and gloves may be required.
- b. Steel toe safety shoes
- c. Long pants – legs must be covered
- d. No lanyards are to be used

Aviation Laboratories

The laboratories covered in this section are: **E030, E306** (only when there are experiments using chemicals).

1. Many experiments require the use of fume hoods. You must understand the proper use of a fume hood and keep all fume hoods clean and tidy.
2. Use of Bunsen burners are restricted in many laboratories. Be sure that it is safe to light before doing so.
3. Laboratory E030 is a spark proof area. As such, all open flames such (e.g., Bunsen burners) are not allowed.
4. Transfer of chemicals. Be sure that you transfer all liquids (e.g., solvents) into the proper container. All transfer of solvents from large properly grounded safety cans to small reagent containers must be done in a fume hood. Transfer of chemicals (mainly solids) to be weighed must be done at a Top Loading balance only. Final measurement must be done at an Analytical balance. **(NO TRANSFER OF CHEMICALS WILL OCCUR AT AN ANALYTICAL BALANCE.)** Any spill of a chemical (liquid or solid) must be cleaned up immediately.
5. It is the policy of the Department of Chemical, Environmental Bio-Technology to implement the three Rs (reduce, reuse and recycle) for a safe environment. All laboratory activities are continually being revised to reduce waste, reuse chemicals (where possible) and recycle (e.g., organic solvents). However, when waste does occur, all waste organic chemicals must be disposed of in the appropriate container. For example, chemicals with oxygen (O_2) must be disposed of in waste containers labelled with oxygen (O_2) and chemicals without oxygen (O_2) must be disposed of in another waste container labelled without oxygen (O_2). Other waste containers may be labelled as ethers, metals or potassium permanganate etc. Also, individual experiments and laboratories may have unique disposal procedures. You **MUST NOT** dispose of a chemical in the wrong container. If you are unsure of a disposal procedure for a particular waste chemical always check with a faculty member or a technologist before disposal.
6. No pipetting by mouth is allowed in any laboratory. You **MUST** use a pipet bulb.
7. Label all containers that you are using with the name and concentration of the **chemical**, and if it is hot it must be clearly identified as **HOT**. You must know and understand all WHMIS symbols and hazards.
8. Keep fume hoods clutter free and clean. (N.B., Do not leave samples in a fume hood unattended or when it is not necessary for the sample to be in a fume hoods.)
9. Clean up all chemical spills (e.g., solvents, solids or aqueous solutions) immediately.
10. Clean up all broken glass immediately (use brush and dust pan provided). Dispose of broken glass **only** in the appropriate broken glass container.
11. Know the location of the eye wash fountain in every laboratory. Proper use of an eye wash fountain require the flushing of an eye for 15 minutes minimum with copious

amounts of water while holding your upper and lower eyelids away from the eyeball and rolling eyes while washing affected eye.

12. While working with vacuum systems, be aware of the possibility of an **implosion**.
NOTE: your professor will give specific precautions.
13. While working with pressurized systems, be aware of the possibility of an **explosion**.
14. Volatile flammable liquids must not be stored in ordinary refrigerators that have not been made explosion proof.
15. All used sample vials must be returned to the appropriate collection container.
16. All high-pressure cylinders must be secured and handled according to the WHMIS Worksite Specific instructions described in the Compressed Gases (Safe Handling Procedures) section of this document.

Aviation Electrical Labs, Fennel and Airport Campuses

Electrotechnology Lab Procedures

Familiarize yourself with these procedures to ensure that you have a safe and positive learning experience in our laboratories.

1. Student Requirements and Procedures
2. Lab Access
3. General Safety
4. Personal Electronics, Cell Phones, Laptops ...
5. Safety Eyewear and Electrotechnology Eyewear Safety Requirements
6. Food and Drink
7. Proper Apparel and Dress
8. Soldering
9. Power Tools
10. Hand Tools
11. Laboratory Housekeeping
12. E229A Lab
13. Lab PCs
14. Go Green! Environmental Sustainability
15. E229 Technical Support Shop

1. Student Requirements and Procedures

1. Know your rights and responsibilities and read the *Student Policies and Procedures*.
2. You are responsible for your actions at all times. Ignorance of the rules, regulations and standards of conduct will not be accepted as a defense against disciplinary action.

2. Lab Access

1. Students are only permitted to enter an Electrotechnology lab if they have a scheduled class or Open Access lab and the instructor or a college staff member allows entry. Please wait outside of the lab until your class starts and your instructor arrives.
2. Do not enter any open or unlocked labs that are not supervised by a college staff member. Immediately report any such labs technical support in E229 and security when at the Fennel Campus and your instructor when at the Airport Mohawk Campus.
3. Students may not work alone in a laboratory. They must be supervised by an instructor or a college staff member.

3. General Safety

1. Always work in a safe manner and be respectful of others around you.
2. Do not perform any activity that you feel is unsafe. Ask your instructor for guidance.
3. Horseplay of any kind can be extremely hazardous in a lab or shop area and is forbidden at all times.
4. CSA approved Safety glasses are required as stated in the *Electrotechnology Eyewear Safety Requirements*
5. Turn off all instrumentation (power supply, oscilloscope, etc.) at the end of the lab.
6. Unplug any equipment or tools (soldering iron, drills, etc.) when not in use. Always pull the plug and NOT the cord.
7. Do not stack anything (this includes additional lab equipment, instrumentation, books, soldering irons, tool boxes, tools

- etc.) on the equipment shelves at the benches or on any piece of equipment, instrumentation or PC on the bench.
8. Report any equipment that is damaged or not working properly to the instructor.
 9. Immediately turn off and unplug equipment that is hot, generating smoke, sparking, unsafe or you suspect is not working properly and immediately report this to your instructor!
 10. Unplug AC power cords by gripping the power plug. Do not pull on the power cord.
 11. Equipment, tools and workstations must be left clean and in an orderly state after each use.
 12. Any person working or using equipment in an unsafe manner is a risk to themselves and others and will be asked to leave the lab.
 13. You can't be graded if you are not present in the lab.

4. Personal Electronics, Cell Phones, Toys, Laptops ...

1. Personal electronics or toys for entertainment purposes such as MP3 players, iPods, Game Boys, KerPlunk, etc. are not permitted to be used in the lab.
2. Cell phones are a distraction and disruption in the lab and should only be used for emergencies.
3. The use of laptops in the lab is at the discretion of the instructor.
4. Wireless internet access is available at the College for students.
5. You may NOT connect your laptop to the physical network connections in the Electrotechnology labs.

5. Safety Eyewear

1. The Electrotechnology Eyewear Safety Requirements requires all persons working in our labs to wear CSA approved Class 1A - Spectacle-type safety glasses with side protection.
2. Clear lenses are the most appropriate for our lab environment.

3. Persons with prescription safety glasses can wear CSA approved "over-the-glass" eyewear or purchase customized prescriptive industrial safety glasses (usually from an optometrist or ophthalmologist) and request "*industrial protection*" lenses and frames.
4. Purchase safety glasses that are comfortable and a good fit as you will be wearing them at all times in the majority of ET labs.
5. Safety Eyewear can be purchased in the bookstore, the ET Shop or outside of the College.
6. The MSA provides a short term loan of safety glasses if required.

6. Food or Drink

1. Food or drink is NOT permitted in any of the Electrotechnology labs. There are no exceptions to this.
2. Food or drink at any workstation with a PC, electrical equipment or electronic instrumentation is a source of contamination to equipment and the benches and a potential safety hazard.
3. Drinks (even closed bottles) are to be kept off of the workstations. Please leave the room to drink if you are thirsty and need replenishing.
4. You are handling materials and electronic components in the lab with residue from the manufacturing process. You must wash your hands after each lab and before eating.

7. Proper Apparel and Dress

1. Appropriate apparel and dress is required in labs where machining operations, soldering, power tools, etc. are present.
2. You will be advised by your instructor of proper apparel and dress requirements for your lab.
3. Engineering Skills (Elec10037) in E209, E229, E229A and E229D are examples of labs where appropriate apparel and dress must be worn.

4. Loose clothing, neck ties, jewelry, long hair and open toed shoes may be hazardous in many lab and shop situations.
5. Rotating machinery can not tell the difference between metal, clothes or flesh. Loose apparel and long hair can be easily drawn into machinery and you with it!
6. Do not perform any activity that you feel is unsafe. Ask your instructor for guidance.

8. Soldering

1. Safety glasses are required as stated in the *Electrotechnology Eyewear Safety Requirements*.
2. Soldering is only to be done at properly designated soldering stations.
3. Soldering is only to be done on a "Soldering Board"; this is a thin rectangular piece of brown wood material.
4. NEVER file the tip of a soldering iron; they are to be cleaned with a wet sponge. Filing is for the old copper clad tips only and we do not use these.
5. Soldering is NOT permitted at any workstations with equipment, instrumentation or PCs. See your instructor first if you need to solder in a lab.
6. Soldering IS permitted at workstations in E209 which is a designated soldering lab.
7. You may only solder in the lab under the direction and supervision of an instructor or technical support.
8. Only the recommended soldering irons for electronics work may be used. Open flame (such as butane) or "cold" soldering irons are not permitted.
9. Read the MSDS sheet for the solder you are using.
10. A common solder is M.G. Chemicals 4900 (*MSDS sheet*) and 4901(*MSDS sheet*) Lead Free Solder and once used is Kester "44" Rosin Core Solder (*MSDS sheet*).
11. Work in a well ventilated area.
12. Do not directly inhale solder fumes. Use a fan (when available) to draw fumes away from you or a smoke absorbers such as the *Weller WSA350 Smoke Absorber*.

13. Workstations should be free of any clutter that may make contact with the soldering iron.
14. The soldering iron and your work must be done on a soldering board; these are available in the lab.
15. The soldering iron tip must be safely directed away from equipment, the workstation or any persons working nearby. Use a solder stand to hold the iron when not in use.
16. The soldering iron cord must be safely directed away from the hot iron tip at all times so they do not make contact.
17. The soldering iron cord should be kept short (use twist ties or a strap) and must not be caught or pulled by any equipment, the workstation or any persons working nearby.
18. A sponge must be used to clean soldering iron tips.
19. Shaking or splashing solder off the tip is a safety hazard and not permitted in the lab. You will be asked to leave the lab if you are doing this. You can't be graded if you are not present in the lab.
20. Do not touch the hot soldering iron tip. Ouch!
21. When finished using the soldering iron you MUST:
 - Clean the soldering iron tip
 - Re-tin the tip to preserve the life of the iron.
 - Unplug the soldering iron by the plug and not by pulling the cord.
 - Allow your soldering iron time to cool before storing it.
 - Clean the sponge and discard the solder in the "Solder Waste" can.
22. All solder waste must be removed from the workstation and discarded in the "Solder Waste Can" in the lab. Solder waste is NOT to be discarded into the common waste containers.
23. Wash hands thoroughly after handling solder containing lead. Lead is known to cause cancer and birth defects.
24. Equipment, tools and workstations must be left clean and in an orderly state after use.
25. You may not leave any solder contamination or mess at the workstation.

9. Power Tools

1. Safety glasses are required as stated in the *Electrotechnology Eyewear Safety Requirements*.
2. You may only use power tools (drill press, hand drills, etc.) in the lab under the direction and supervision of an instructor or technical support.
3. Drilling is not to be done at any workstations with equipment, instrumentation or PCs. Particles, dust and debris entering any vented electronic instrumentation is a safety hazard.
4. Drilling is only to be done at properly designated drilling stations or the drill press; the small tables in E209 and E227 (front of the lab) are designated for drilling.
5. Particles and debris are generated by power tools and must always be directed away from any exposed circuits, equipment or persons nearby.
6. Equipment, tools and workstations must be left clean and in an orderly state after each use.

10. Hand Tools

1. Safety glasses are required as stated in the *Electrotechnology Eyewear Safety Requirements*.
2. Hand tools such as wire cutters, wire strippers, hacksaws, hammer, etc. may generate particles and debris that must always be directed away from any exposed circuits, equipment or persons nearby.
3. PC keyboards should be turned over when doing laboratory exercises that require cutting or stripping of wire.
4. Equipment, tools and workstations must be left clean and in an orderly state after each use.

11. Laboratory Housekeeping

1. Laboratories PCs, equipment, tools and workstations are cleaned and in order prior to the start of each semester.

2. It is the responsibility of all persons using the lab to maintain it cleanliness and ensure that it is in an orderly state after each use.
3. Laboratory PCs, equipment, tools and workstations must be left clean and in an orderly state after each use.
4. If a workstation is found in an unacceptable condition you must inform your instructor and technical support staff.

12. E229A Printed Circuit Board Development Lab

1. The use of this room and equipment is restricted to full-time college staff only.
2. Students and part-time staff that are working in this room must be supervised by a full-time staff member present in the room.
3. Students and part-time staff that require after hours access to the PCB development equipment will require written permission from the Associate Dean, Jay Notay.
4. Chemicals required for PCB development are available from technical support.
5. For safety reasons you are required to inform technical support if you will be working in this room.
6. Technical Support is located in Room E229 at Ext. 2232 (John) and Ext. 3393 (George)

13. Lab PCs

1. Know the College Policies that pertain to use of information technology resources in our labs:
 1. [Policy \(#C1020\)](#)
 2. [Acceptable Use Guidelines](#)
 3. [Information Technology Student Code of Conduct](#)
2. At the end of the lab all PCs:
 1. Must have a working network connection.
 2. Must be restored to the common lab image by the instructor. Note: This does not apply to labs that are DeepFreeze'ed.

3. Must be properly shutdown. This is done for security, administration (prepares the machine for imaging) and conserves power.
3. A proper shutdown of the PC is required at the end of the lab.

14. Go Green! Environmental Sustainability

1. Visit the Go Green Environmental Sustainability website!
2. Students are encourage to be stewards of our planet and recycle where possible:
 1. An E-waste can is provided in each lab for e-waste generated in the lab.
 2. Please use the recycling bins provided by the College.

15. E229 Technical Support Shop

Students are not permitted in the E229 technical support room unless accompanied by a staff member.

1. Please see the E229 door or the [ET Shop](#) website for technical support shop hours for kit sales.

Updated September 6, 2010, George Voros, Electrical and Computer Engineering Dept., Mohawk College

EMERGENCY PROCEDURES INVOLVING A COMPRESSED GAS Class A Materials

If you see gas escaping from a cylinder which appears to be damaged or faulty:

1. Alert others to the situation.
2. Do not approach the cylinder.
3. Evacuate the area and sound the fire alarm.
4. Call emergency 911 and relay information as to the nature of the problem.

If you see gas escaping from an undamaged cylinder via an open valve that has been left open inadvertently:

1. Alert others to the situation.
2. Try to identify gas but do not approach cylinder.
3. An authorized person will put on the personal protective equipment necessary, including a respirator and close the main cylinder valve.
4. Open windows if possible.
5. Evacuate area until gas leak discontinues.

If you see a flammable gas escaping under any circumstances:

1. Alert others to the situation.
2. Evacuate and sound the fire alarm.
3. Call emergency 911 and relay the necessary information.

EMERGENCY PROCEDURES INVOLVING FLAMMABLE AND COMBUSTIBLE MATERIALS Class B Materials

1. Know the location and use of fire extinguishers and exit routes.
2. EVALUATE THE EXTENT OF THE FIRE

In Cases of Large Fires

- a. Leave the area and be sure to move injured parties out. Shut doors behind you (**DO NOT LOCK**).
- b. Pull the fire alarm.
- c. Call 911 and relay information as to location and nature of fire. Report injuries.
- d. Evacuate the building using the appropriate exit routes. Do not use elevators.
- e. Notify Mohawk College emergency at 55 if possible.

In Cases of Small Fires

- a. A fire in a small container can easily be controlled by covering it with a beaker or watch glass. Do not use a dry towel or pieces of clothing. Remove all nearby flammable material so as to prevent fire from spreading.
- b. Use a fire extinguisher only if the fire seems easy to control. Direct the stream of CO₂, with a side-to-side motion, towards the base of the flames. When fighting a fire, always stand between the fire and an exit. Be prepared to pull the fire alarm and evacuate the building if necessary.

EMERGENCY PROCEDURES INVOLVING OXIDIZING MATERIALS

Class C Materials

1. Know the location and use of fire extinguishers, safety showers and eye wash stations in the area.
2. Alert other people in the area to the emergency.
3. In case of fire evacuate the area at once. Ensure that injured parties are helped out of the area.
4. Sound the fire alarm and call emergency 911.
5. Shut off electrical power and gas if possible.
6. First Aid

For Ingestion

Give plenty of water to drink. Call Medical Services at ext. 2084 and inform them of the substance ingested. Do not induce vomiting unless specifically directed to do so.

For Skin or Eye Contact

Immediately flush with water for at least 15 minutes using safety shower or eye wash if necessary. Obtain medical attention in room C109 or by calling ext. 2084. Remove jewellery or contact lenses.

For Inhalation

Move victim to fresh air. Call Medical Services at ext. 2084 if necessary. If victim is not breathing, start emergency resuscitation procedures (mouth to mouth breathing with mouth guard) and if qualified to do so, start CPR.

SOME TYPICAL OXIDIZING MATERIALS CLASSIFIED ACCORDING TO THEIR CHEMICAL STABILITY

NFPA Class 1 Oxidizers (relatively stable). These may increase the burning rate of combustible materials that they contact. They include:		
Aluminum nitrate Calcium chlorate Lithium hypochlorite Nitric acid (70% concentration or less) Potassium nitrate Sodium nitrate Sodium perborate Strontium peroxide	Ammonium persulfate Hydrogen peroxide solutions (8 to 27.5% by weight) Magnesium nitrate Potassium dichromate Silver dichloroisocyanurate dihydrate Sodium persulfate	Barium peroxide Lead nitrate Magnesium perchlorate Perchloric acid solutions (less than 60% by weight) Sodium dichromate Sodium nitrite Strontium nitrate Zinc peroxide
NFPA Class 2 Oxidizers (moderately unstable). These may moderately increase the burning rate or may cause spontaneous ignition of the combustible materials that they contact. They include:		
Chromic acid Potassium permanganate Sodium peroxide Sodium permanganate Trichloroisocyanuric acid	Calcium hypochlorite (50% or less by weight) Hydrogen peroxide (27.5 to 52% by weight) Nitric acid (more than 70% concentration) Sodium chlorite (40% or less) 1,3-dichloro-5,5-dimethylhydantoin	
NFPA Class 3 Oxidizers (less stable than Class 2 but still moderately stable). These can severely increase the burning rate of the combustible materials they contact or they can undergo vigorous decomposition when in contact with a catalyst or exposed to heat. They include:		
Ammonium dichromate Potassium bromate Potassium chlorate Sodium chlorate Sodium dichloroisocyanurate	Hydrogen peroxide (52 to 91% by weight) Perchloric acid solutions (60 to 72% by weight) Potassium dichloroisocyanurate Sodium chlorite (over 40% by weight)	
NFPA Class 4 Oxidizers (unstable). These can explode when in contact with a catalyst or when exposed to heat, shock or friction. They include:		
Ammonium perchlorate Ammonium permanganate	Hydrogen peroxide (more than 91% by weight) Perchloric acid solutions (more than 72.5% by weight)	
Adapted from the National Fire Protection Association (NFPA) 43A-1980, <i>Code for the Storage of Liquid and Solid Oxidizing Materials</i> .		

EMERGENCY PROCEDURES INVOLVING POISONOUS AND INFECTIOUS MATERIALS D¹ and D² Class Materials

D ¹	MATERIALS CAUSING IMMEDIATE AND SERIOUS TOXIC EFFECTS
D ²	MATERIALS CAUSING OTHER TOXIC EFFECTS

1. Alert others to the situation.
2. If toxic gas or vapour builds up in an enclosed area, evacuate immediately. Call emergency 911 and relay information as to the nature of the emergency.
3. Treat overexposure of toxic chemicals as follows:

In case of Ingestion

Determine the exact nature of substance ingested. Have the victim drink large amounts of water. Call Medical Services at extension 2084 or the POISON CONTROL CENTRE at 8-1-800-268-9017 and relay the necessary information. Do not induce vomiting unless specifically directed to do so. Never give anything by mouth to an unconscious person. If there is an antidote, administer it immediately.

In Case of Inhalation

Move victim to fresh air. If victim is not breathing, begin mouth-to-mouth resuscitation immediately. If the heart has stopped (no pulse), start CPR (if trained to do so). Call Medical Services at extension 2084 as soon as possible.

In Case of Eye or Skin Contact

Immediately use eye wash, safety shower or rinse for at least 15 minutes. Get medical attention.

EMERGENCY PROCEDURES INVOLVING CORROSIVE MATERIALS

Class E Materials

In emergencies like chemical fires, leaks and spills:

1. Alert others to the situation and evacuate if the problem is beyond your control.
2. Sound the fire alarm and call emergency 911 if necessary.
3. Obtain first aid if you have been exposed to corrosives.

For Eye Contact

Flush eyes with water using the eye wash station for 15 to 20 minutes. Always get medical attention (Medical Services C109).

For Skin Contact

Remove contaminated clothing and flood exposed skin with water for at least 15 minutes (use safety shower if necessary), obtain medical attention except for minor cases of skin contact.

For Inhalation

Move victim to fresh air. If breathing has stopped begin mouth-to-mouth resuscitation. Call Medical Services at extension 2084 if necessary.

For Ingestion

Give plenty of water to drink. **DO NOT INDUCE VOMITING.** Call Medical Services at extension 2084 or Security at extension 55

EMERGENCY PROCEDURES INVOLVING DANGEROUSLY REACTIVE MATERIALS Class F Materials

1. Alert others to the situation.
2. If situation is beyond your control, leave the area immediately.
3. Sound the fire alarm. Call emergency 911 and relay information as to nature of emergency.
4. Evacuate the building. Make sure injured parties are attended to.
5. Contact Medical Services at extension 2084 in cases of injury and obtain first aid if required.

EMERGENCY PROTECTIVE EQUIPMENT AND INFORMATION

Know the use and location of the emergency protective equipment available. Following is a list of the equipment and information found in the laboratory.

1. Fire Extinguisher (CO₂)
2. Safety Shower
3. Eye Wash Stations
4. Electrical Shut Off (various locations)
5. Lab Utilities Shut Off
6. Fire Exit Routes
7. MSDSs (E030, E303C, E304A, E327, A028)
8. First Aid Kit (E030, E305A, E306A, A028)

AWARDS, SCHOLARSHIPS, AND BURSARIES

A variety of awards, scholarships, and bursaries are available every year through the Student Awards Office in the College. Each award has criteria written by the donor. Some awards are open to all Mohawk College students, while others are only open to specific Faculties within the College. We have included a partial list of awards from previous years that were available to students in the BECAM Department. These awards are dependent upon the donors and we cannot guarantee that these awards will be offered every year.

Mechanical, NDE, Aviation Awards, Scholarships and Bursaries

Alison Smit Bursary
COM DEV Mechanical Engineering Scholarship
Grace Dorothy Carpenter Scholarship
Hamilton International Airport Ltd. Scholarship
Hamilton Engineering Week Bursary
Hamilton International Airport Ltd. Bursary
ITML Inc. Bursary
Wescast Industries Continuous Learning Bursary

A variety of bursaries are also available to students through the Financial Aid and awards office
(905)575-2133

JOB CENTER

The Job Center provides assistance to students, employers and college personnel on a year round basis. The Office acts as an employment resource link between education and industry. Employment officers provide job referral services, pertinent labour market information, career advisement, and job search presentations. For information about Chemical and Mechanical graduate placements please call (905) 575-2167.

SPECIAL NOTES

Students who enter a Co-op Program are expected to assume several responsibilities. They must compete for and obtain one of the available jobs or find acceptable alternative employment for the work semester. They are required to fulfil their agreements with employers and abide by the rules governing Co-operative Education. Failure to do so could result in suspension from the program and a failing grade in a work term. The format for co-op in the various programs is shown in Figure 2. Note that not all programs have the same co-op/academic semester sequence.

A student who declines to accept two job offers without just cause after interviews provided by the co-op staff may be prevented from taking further interviews. The student will then be required to find his/her own job.

Priority for co-op employment will be given to full-time students who are Canadian citizens or landed immigrants. If there are excess co-op positions available, International students may have access to the co-operative jobs.

Students participating in co-operative education will be assessed a co-op service fee per academic semester beginning with semester one.

Full guidelines for co-operative education may be obtained from the Job Centre.

The Job Centre staff attempts to provide work opportunities related to the students' career interests and program of studies. **This is not a guarantee.** The final work placement success is largely the responsibility of the student.

BIBLIOGRAPHY

1. American Chemical Society, Safety in Academic Chemistry Laboratories distributed by Boreal 4th Edition, 1985.
2. Canadian Centre for Occupational Health and Safety, various publications.
3. The Chemical Institute of Canada, Laboratory Safety Handbook, 1987.
4. Occupational Health and Safety Education, Authority of the Workers Compensation Board, WHMIS Right to Know handbooks, 1988.

Excerpts from TCM (To be Included).....

6.1 Examinations - General

6.1.1 Examinations

Student theoretical learning will be tested using any combination of closed book examinations including essay, multi-choice, electronic, oral testing, or graded practical projects. Mid-term and Final examinations may be administered in courses where appropriate. In other courses the student grade is determined through segmented testing strategies for each course. Records shall be retained and made available to TC and CCAA on request.

6.1.2 Practical Projects

Practical projects are used to complement the theoretical training in applicable subject areas. Practical projects are normally designed to meet multiple skill objectives and are used to evaluate student performance. Practical projects can be evaluated by either using grades, or as complete/incomplete. If the project is not graded, it will be considered completed only if it meets the standard/s indicated on the project card

6.1.3 Student Ongoing Performance

Students shall be made aware of their ongoing performance.

6.4 Examination Pass Standard

Students must achieve an average of 70% or greater in each core course

Each graded practical project must be completed with a grade of not less than 70%.. Graded practical projects which fail to achieve the passing grade are returned to the student for correction. As such there are no re-write options for failed practical projects. Failure to complete a practical project will result in the failure of that course.

6.5 Examination Re-writes

Students may be permitted a maximum of one (1) rewrite theory examination upon authorization in each course per semester. Only examinations that initially were graded less than 70% are eligible for re-write. Rewrite attempts must occur no sooner than the date of course completion and no later than four (4) weeks after the end of the semester.

6.9 Examination and Practical Project Grades

Students must achieve a passing grade of 70% in each core subject area in order to receive TC approval and CCAA accreditation

Chapter 7

Enrolment and Attendance

7.1 Admission Requirements

7.1.1 Admission Requirements – General

Program admission requirements are in accordance with Mohawk policy AC704 – “Admissions Policy”. Excerpts of the policy are included as appropriate in this policy document for the ease of the reader and to minimize the number of documents incorporated by reference.

Admission practices must comply with Ontario Reg. 34/03 and guidelines issued by the Ministry of Training, Colleges and Universities (MTCU), and relevant government legislation, including the Ontario Human Rights Code, the Freedom of Information and Protection of Privacy Act, and the Accessibility for Ontarians with Disabilities Act, 2005.

7.1.2 Prerequisites

To be considered for admission to Mohawk College’s Aviation Technician Programs, an applicant must meet the following Admission Requirements

- (a) OSSD or equivalent (GED, College and Career Preparation) including:
 - Grade 12 English, C or U or equivalent
 - Grade 12 Mathematics, C (MCT4C) recommended or (U)
 - Grade 12 Physics, C or U recommended
- (b) Mature applicants are considered individually

(c) A mature student is one who has reached the age of 19 on or before the start of the program and who does not have an OSSD, or equivalent
Aviation program applicants must demonstrate the ability to perform mathematical calculations at a OSSD level of grade 12 and have an ability in listening, speaking, reading and writing in the English language at the grade 12 level.

7.1.3 Admission Process

The College will only consider applications for admission submitted to the Ontario College Application Service (OCAS) by the published deadlines. Applicants must demonstrate successful completion or projected successful completion of the requirements specified above, or successful completion or projected successful completion of any preparatory work stipulated in writing by the College. Applications received after the published deadline will be processed on a first come, first-served basis as long as spaces are available.

7.1.4 Admission Priority

Students are admitted to Mohawk College in the following priority order:

- (a) Permanent residents of Ontario
- (b) Permanent residents of other Canadian provinces and territories
- (c) Other applicants

7.2 Admission Advance Standings

7.2.1 Advanced Standing – General

Advanced Standing and Prior Learning Applicants with credits from college or university may apply for advanced standing or transfer credit. Applications for advanced standing are considered on an individual basis.

7.2.2 Advance Standings – Accreditation Recognition

Students coming from other programs or colleges who apply for course credit exemptions must be from a CCAA accredited program to be eligible for a Mohawk College diploma and to be considered for accreditation recognition.

7.2.3 Evaluating Advance Standings

The evaluation of advance standing requests is the responsibility of the PRT. In all cases advance standing credits will require documented evidence that the student has achieved the learning outcomes for the specific course.

Information Note: The determination that an applicant has achieved the learning outcomes may be made using documentation from another college with accreditation in the same program of studies or through an internal evaluation strategy that ensures knowledge and skill course objectives have been achieved. Accreditation recognition will be provided on the graduation certificate only if attendance from the previous training organization is validated.

7.3 Access to Student Information

7.3.1 Consent to release student information

Students enrolled in an aviation program will be requested to sign a release form at program entry to allow auditing agencies (CCAA or Transport Canada) to access their academic records during the performance of an audit.

7.3.2 Non Consent

Students who do not consent to the release of information will have their student information filed separately. Should auditors require access to this information the college will ensure all information which may permit identification of the student is blacked out.

7.4 Training Schedules

7.4.1 Maximum Training Day

The training schedule shall be developed to ensure that students do not exceed eight hours of training (or combined duty/training) in any one day or more than six consecutive days or forty hours of training in any seven-day period. Occasional exemptions to this standard are acceptable when situations arise where the students may require dedicated access to specific equipment or facility. Each exemption will be authorized by the PRT and documented.

7.5 Student Attendance

Student attendance will be documented by the applicable instructor in ¼ hour increments. Student summary attendance records will be maintained under the authority of the PRT for not less than five (5) years. Students missing more than 5% of any major subject area will not qualify for a certificate with a TC approval number or CCAA accreditation. If a student successfully completes the requirements of the program but exceeds the 5% absentee limit on any major subject area, the student may still be awarded a college Diploma but without the Transport Canada or CCAA accreditation.

7.6 Instructor Absence or Class Cancellation

7.6.1 Instructor absence

In the event an instructor is absent for a scheduled class the Associate Dean, PRT or delegate will be responsible to provide a substitute instructor for the class or lab. Should a suitable substitute not be available, the class will be rescheduled to a later date in collaboration with the responsible Instructor on his or her return.

7.6.2 Class cancellation

Similarly should a class be cancelled for an unforeseen reason such as inclement weather the Associate Dean, PRT or delegate will also notify the students of cancellation at the time of the class or lab. In such situations the cancelled class will be rescheduled to a later date in collaboration with the responsible instructors.

7.6.3 Rescheduled Classes

Rescheduled classes will be documented on the attendance register as a rescheduled class.

7.7 Supplemental Studies

7.7.1 Supplemental Studies General

Students may make up the lost time which is in excess of 5% through documented supplementary studies, equivalent to that missed from the original program to qualify for experience credit.

Note: The 5% absence policy is intended for illness, bereavement, or other circumstances beyond the individuals' control.

7.7.2 Supplemental Studies Approval

Instructors involved, in conjunction with the Associate Dean and the PRT will evaluate each situation individually to decide if supplementary studies should be granted and how the student will complete the missed subject matter. Approval of supplementary studies is conditional on satisfactory past performance including attendance and grades achieved to date. Supplementary studies shall be accomplished as soon as practically possible, normally prior to the completion of the affected course or courses. In all cases any supplemental studies shall be completed within one year of normal program completion.

7.7.3 Supplemental Studies Content

The content and type of the studies will be determined by the evaluation of each candidate's needs as it pertains to the time missed. Subject matter identified will be incorporated into a supplementary studies training package.

7.7.4 Supplemental Studies Records

Each approval and completion of supplemental studies will be documented and retained in the individual student records.

Chapter 8 Graduation Diploma

8.1 Graduation Certificate Issuance

8.1.1 College Completion Standard

Students successfully meeting the passing grade of 70% in core subjects will be issued with a Mohawk College Diploma.

8.1.2 Accreditation Standards

Students meeting the minimum standards listed below will receive a certificate which recognizes CCAA and Transport Canada accreditation of the program:

- (a) Achieve a minimum grade of 70% in each core course.

- (b) Successfully complete all practical projects.
- (c) Maintain a 95% attendance record in each semester

9.3 Student Record Release

Students are asked to sign a release form upon entry to an aviation program consenting to the release of attendance and academic information to CCAA and Transport Canada in the event these are requested. This information will be used for accreditation audits and licensing purposes and will not be transmitted to any other agency or individual without the student's written consent. In the event a student refuses to sign the release, it will be recorded on the release form and the student records highlighted accordingly. In extenuating circumstances and when required the auditing agency may be provided records with all identifiable information blacked out.

9.5 Student Records

Student records will include the following minimum information:

- (a) Student grades inclusive of pass/fail records.
- (b) Grades achieved on each failed attempt.
- (c) Student attendance (theoretical and practical portions of course).
- (d) Records of completed student examinations, or other forms of analysis of student performance.
- (e) Student supplemental study sessions.
- (f) Graduation certificates issued.
- (g) Student Record release form
- (h) Enrolment records inclusive of any advanced standings
- (i) Students Shop Summary Report

9.6 Curriculum Records

Curriculum records will include the following minimum information

- (a) Course Outline
- (b) Course curricula.
- (c) Course learning plans.
- (d) Current examinations and applicable marking guides.
- (e) Previously administered examinations.
- (f) Suggested amendments to examinations.

Chapter 10

Facilities

10.1 Facility Description

The primary facility for the delivery of aviation programs is located at:

Mohawk College
 Airport Campus
 9270 Airport Rd.
 Mount Hope, Ontario
 LOR 1W0

This facility provides a simulated aviation hangar Areas for tooling, bonded stores, quarantine stores are provided in the area. Hangar floor space is provided to carry out the mandatory projects that require the use of our aircraft. Ramp space is provided to carry out run-ups of both reciprocating and turbine engines. Classrooms are provided for lectures.

Appropriate facilities at the STARRT Campus located at;

Mohawk College
 481 Barton Street
 Stoney Creek, Ontario
 L8E 2L7

may also be utilized. Classrooms, library, drafting labs, computer labs, machine shops, sheet metal shops, welding shops, hydraulic and pneumatic labs, electrical and instrumentation labs and motive power shops are all provided at the STARRT facility.

Appropriate facilities at the Fennell Campus located at;

Mohawk College
 Fennell Ave. and West 5th

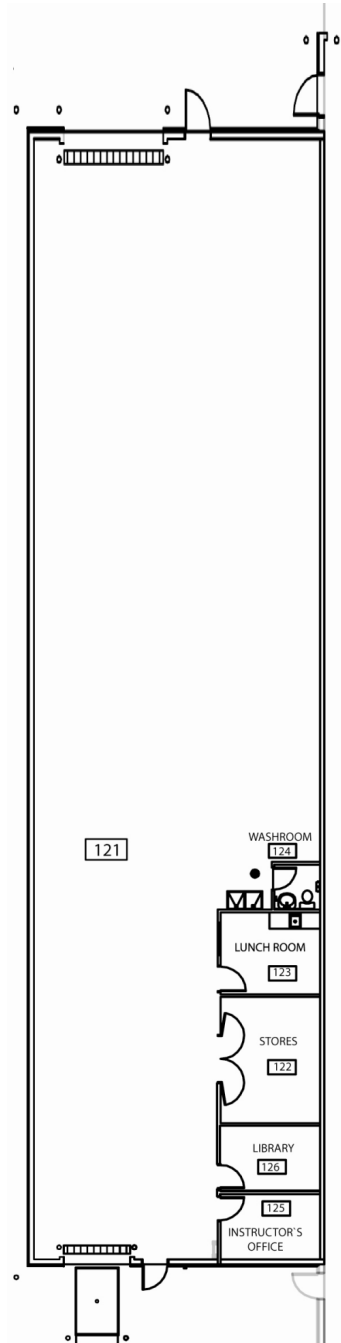
Hamilton, Ontario

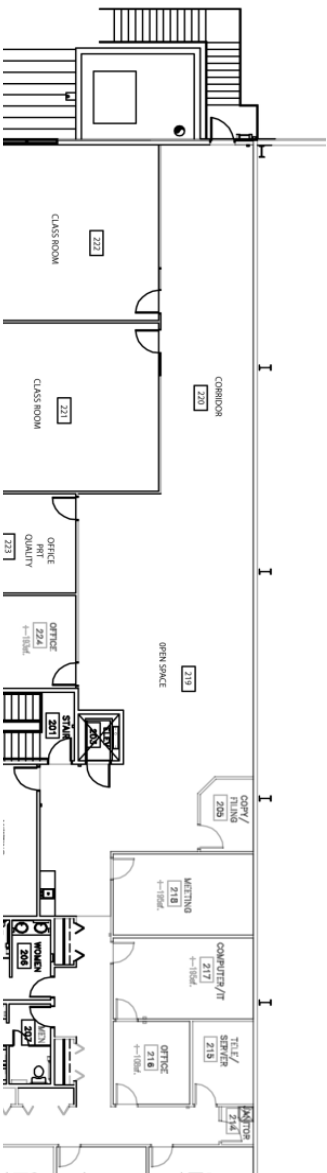
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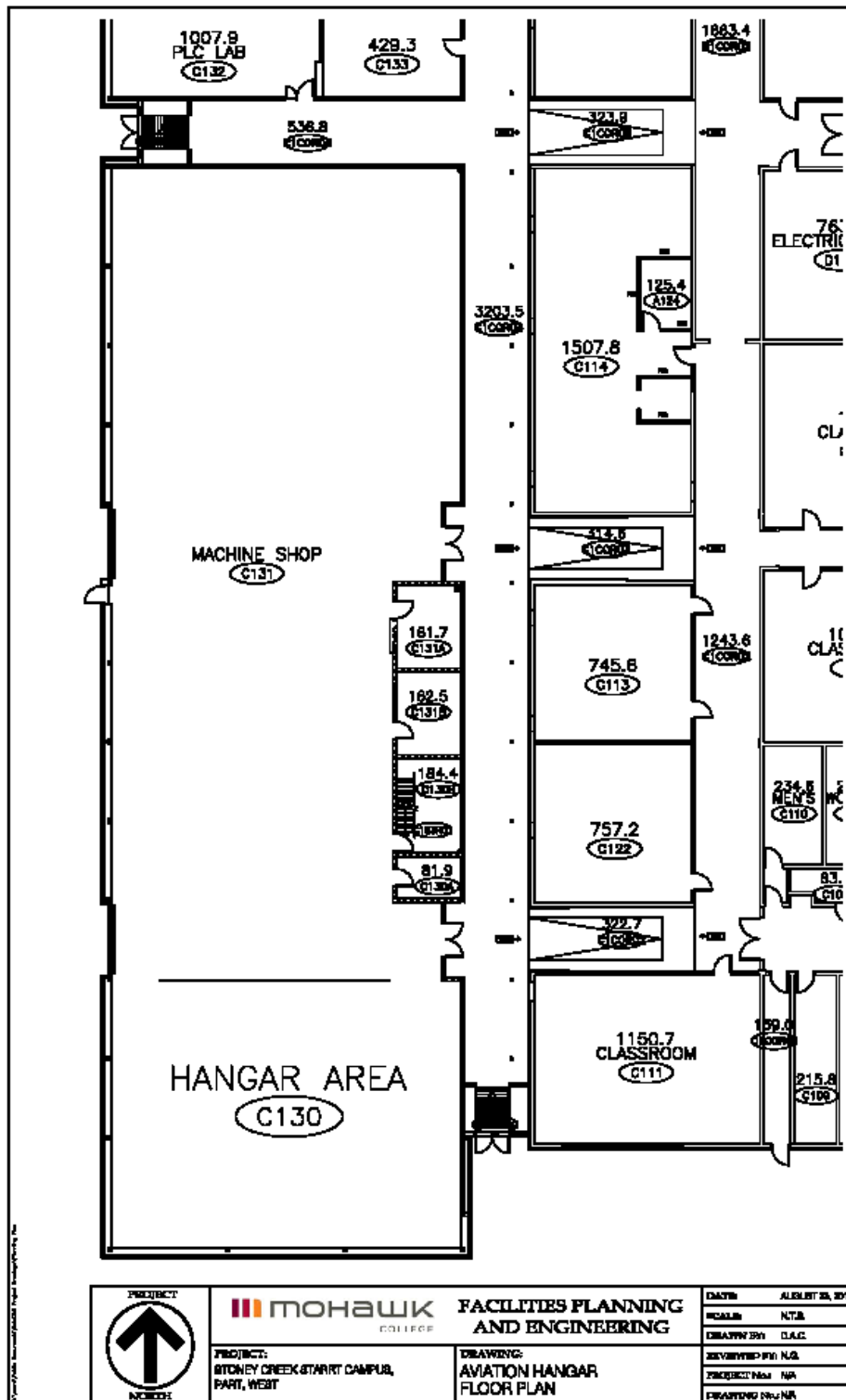
may also be utilized. This facility provides classrooms a library, drafting labs, automation labs, metallurgy and foundry labs, NDE Labs, metrology lab, electrical Labs, measurement systems labs, along with chemistry labs, etc.

10.2 College Floor Plan

Hamilton Airport campus







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10.3 Alternate Facilities

Alternate college facilities are used when appropriate for the subject matter. In addition and in partnership with local industry alternate off site locations (such as the Hamilton International Airport) are used when appropriate to the learning objectives. Alternate facilities, regardless of the location or provider will meet the applicable standards for learning areas.

Prior to using a location not directly controlled by the college the facility, equipment and all related tools and materials will be audited in accordance with the applicable Quality Improvement System checklist (see chapter 3). Recurrent audits of all facilities not under the direct control of the college will occur annually.

10.4 Learning Area Standards

Learning areas are comprised of classrooms, lab areas, and a simulated maintenance hangar area with required heating, lighting and ventilation to accommodate the maximum amount of students taught at one time.

As a minimum, each classroom will include proper seating and suitable writing surface for each student and available presentation methods as appropriate for the type of training being conducted. In addition training aids as appropriate to the subject matter may be available in the classroom. Typically Mohawk College classrooms are equipped with a computer, projector, and audio/visual equipment.

Each learning area will ensure students have an equal and reasonable opportunity to actively participate in the learning objectives.

Lab or shop areas will contain sufficient equipment, tooling, work stations, and aircraft or aeronautical components to accommodate the number of students assigned to the area.

10.5 Bonded Stores Area

An area which simulates a typical industry bonded stores is provided to store and control aeronautical parts and materials.

10.6 Quarantine Stores

A locked area which simulates a typical industry quarantine stores is provided.

Chapter 11 Equipment, Tools, Parts and Materials

11.1 Equipment and Tools – General

An adequate supply of materials, shop equipment and tools to be used for the maintenance of aircraft and associated systems are available. Equipment and materials are either directly available within the organization or available through partnerships with local industry.

Common tooling, not normally provided by the student is made available through tool cribs or equivalent strategies.

11.2 Equipment and Tools – Maintenance see Appendix B of this manual

Equipment and materials within the college will be maintained to a satisfactory working condition. Equipment and materials maintained and used as part of a partnership agreement will be audited to ensure compliance with organizational requirements using quality improvement system audit checklists (see chapter 3)

11.3 Tool Management

Tools and equipment under the direct control of the college will stored, distributed and tracked using standard industry tool management strategies. Tools provided will be in accordance with the learning outcomes of the program and typical of the tooling found in the aviation industry.

11.4 Calibrated Tools and Equipment

11.4.1 Calibrated tools and equipment – General

Under the direction of the PRT tools or equipment normally requiring calibration will be managed using computer based tracking program and calibration stickers applied to the tool or protective case.

11.4.2 Simulation of Calibration

With the exception of tools and equipment that could result in personal harm or equipment damage, calibration will normally be simulated. Calibrated and Simulated calibrated tools will be tracked using the Computerized Tracking System to ensure timely recalibration or simulated calibration is carried out.

11.4.3 Calibration Log

The tool computer based tracking program will list items requiring calibration and the specific calibration requirements.

11.4.5 Calibrated Tool Learning Outcomes

Learning outcomes will include evaluation items which ensure students develop proper workplace habits when using calibrated tools and equipment.

11.5 Aircraft parts and materials

All parts and materials located within the college facilities are for training purposes only and not considered to be airworthy. Documentation used to simulate industry practices will include information that ensures the reader is made aware that the part is not suitable for use on airworthy aircraft or aeronautical components.

11.6 Life limited materials

Life limited materials will be identified and tracked in accordance with industry practices using simulation.

11.7 Bonded Stores Area

An area which simulates a typical industry bonded stores is used to control aeronautical parts and materials. Rotable parts within the stores area will be tagged as per industry practice. Consumable parts will be identified using part and batch numbers for traceability and identification.

11.8 Quarantine Stores

A locked area which simulates a typical industry quarantine stores is available for training purposes. Parts and materials stored within will be tagged in accordance with industry practices.

11.9 Hazardous and Flammable Materials

All flammable materials will be stored in industry standard fire-proof cabinets.

Hazardous materials used in the performance of training activities will be identified accordingly using standard WHMIS methods.

Decanted fluids will be clearly marked to indicate the contents.

11.10 Reference Materials

11.10.1 Technical Documentation

Technical documents in support of the training objectives are maintained adjacent to the area normally reserved for the subject area. Paper based technical documents that are not maintained current will be identified accordingly. Electronic or microfiche type documents available at a common workstation and not maintained current will be identified as such using posters clearly visible to the user. Electronic based documents provided in a format that permits withdrawal from the area will:

- (a) Be identified as uncontrolled and out of date documents on the case
- (b) Printed copies will only be used once and discarded, or will clearly be marked as uncontrolled

Documents used in the performance of practical exercises may be simulated as being maintained current using strategies to ensure appropriate habits are developed through training. When document currency is being simulated each document will include text to ensure the reader is aware that the document is for training purposes only and not current.

Where possible learning outcomes will include evaluation items which ensure students develop proper workplace habits with respect to the use of controlled documents.

11.10.2 Regulatory documentation

Current regulatory publications will be accessed via the internet.