



Memorandum of Understanding

Between



the **University College of Cape Breton**

and **Sir Sandford Fleming College of Applied Arts and Technology**

regarding **Articulations from Technology Diplomas**

to ***Bachelor of Technology* Degree Programs**

WHEREAS the University College of Cape Breton [UCCB] is incorporated by special Act of the Legislature of the Province of Nova Scotia and empowered *inter alia* to grant Bachelor of Technology degrees, and

WHEREAS Sir Sandford Fleming College of Applied Arts and Technology [Sir Sandford Fleming] is incorporated by Act of the Legislature of the Province of Ontario and empowered *inter alia* to grant Engineering Technology diplomas, and

WHEREAS UCCB and Sir Sandford Fleming recognize and support the needs of those learners who wish to earn both a diploma and a degree,

NOW THIS MEMORANDUM WITNESS that

UCCB and Sir Sandford Fleming agree to cooperate with the purpose of offering degree completion options to students of Sir Sandford Fleming diploma programs as shown below:

UCCB Degree Programs
Bachelor of Technology

(min. # of months to completion at UCCB)

From Sir Sandford Fleming's
Technology Diplomas

	Chemical Science	Computer Systems Development	Environmental Health <small>Some courses by distance</small>	Environmental Studies <small>Some courses by distance</small>	Manufacturing <small>Some courses by distance</small>	Petroleum
Environmental Technology			16	8		12
Electromechanical Engineering Technology (Automation Technology)		12			12	

The UCCB Technology Degrees

12 MONTH MINIMUM: Most UCCB Bachelor of Technology Programs require the completion of 14 (term) courses after graduation from a closely-linked diploma program. This normally requires 12 months of study to complete.

8 MONTH MINIMUM: In those cases where senior courses in a Sir Sandford Fleming diploma program are closely aligned with courses in the UCCB degree program, students may (in consultation with a UCCB faculty advisor) challenge a course in the degree program for credit. This may shorten the period of study for the degree to as little as 8 months.

ELECTIVES: UCCB offers university courses in arts, business, engineering, humanities, sciences and technology as well as some diploma and trades areas. These are available to students in the Bachelor of Technology degree programs. In consultation with a UCCB faculty advisor, these selections may be made to expand interests in liberal arts or develop career-specific strengths.

GRADUATE STUDIES: The option of going on to graduate programs is available to Bachelor of Technology graduates. Students having an interest in this career option are cautioned that admission to graduate schools at Canadian Universities is extremely competitive and early, individualized course planning (in consultation with a UCCB faculty advisor) is crucial.

RESIDENCY AND DISTANCE COURSES: The UCCB Technology degree programs require that a minimum of 10 of the 14 required (term) courses be taken from UCCB. A number of UCCB courses are available by distance (paper or online), including some of the required courses for the Bachelor of Technology degree programs and may, in some instances, be the only offering of that particular course that year. UCCB distance courses can be used to fulfill the residency requirement.

Marketing

UCCB publications created for marketing each of the degree programs noted above will be provided to Sir Sandford Fleming by UCCB as needed. Requests for restocking will be made through the primary contacts or their designates. At least one day per year, at a mutually agreeable and appropriate time, and at its cost, UCCB will make a representative available at one or more of the Sir Sandford Fleming campuses for presentations and consultations with students.

Sir Sandford Fleming publications created for information, promotion and marketing of the diploma programs noted above will identify the UCCB Bachelor of Technology programs available to Sir Sandford Fleming students generally as well as specifically for each Sir Sandford Fleming diploma program indicated.

It is agreed that use of the marks, icons, trademarks, crests, coats-of-arms etc. of each institution by the other institution will be done only with prior notice, reasonable opportunity for input and to edit. Each institution reserves the right of refusal of any such use if agreement of use is not reached.

Academic Criteria

All applicants must have completed an appropriately matched Sir Sandford Fleming technology diploma program. Although individual consideration will be given for a record of progressive work experience for graduates of previous years, a minimum overall B average (70%, 3.0 GPA) is preferred

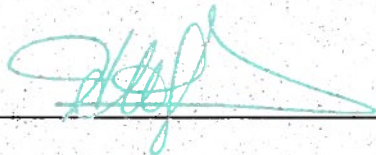
Primary Contacts

Dr. Hal Jorch, Dean School of Science & Technology University College of Cape Breton PO Box 5300, Station A Sydney, NS B1P 6L2 Email: hal_jorch@uccb.ca voice: 902-563-1262 fax: 902-563-1246	Trudy Heffernan, AP&O Sir Sandford Fleming College of Applied Arts & Technology 599 Brealey Drive Peterborough, Ontario K9J 7B1 Email: theffern@flemingc.on.ca voice: 705-749-5530x1322 fax: 705-749-5540
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Amendments and Termination

Both institutions undertake to monitor and review this MOU at least annually. Amendments may be made by mutual agreement and the exchange of a document representing the new version of the MOU, normally on an annual basis. Either party may terminate this agreement by written notice to the other through the primary contacts, with sufficient notice to allow in-progress students a sufficient minimum time to finish. This agreement is valid for a five-year period from the date of signature. A minimum annual amendment is expected to be an update of the signing date, moving the five-year window one year into the future.

Dated at Sydney, Nova Scotia this Monday, July 12, 2004



H. H. Jorch, Ph.D
Dean, School of Science and Technology



Rachel Donovan
Vice-President, Academic

Program Chart

UCCB Bachelor of Technology Computer Systems Design			Sir Sandford Fleming Diploma Name	
Spring	ELEC 214	Instrumentation Applications		
	ELEC 244	Integrated Circuits		
	ELEC 274	Digital Systems and Microprocessors		
	ELEC 284	Machines and Controls		
Fall	MATH 185	Programming in C++		
	ENGI 205	Engineering Economics		
	ELEC 411	Embedded Operating Systems		
	ELEC 421	Microelectronics Design Tools		
	Elective			
Winter	MATH 122	Differential and Integral Calculus II		
	ELEC 412	Digital Signal Processing		
	ELEC 422	Applied Integrated Circuit Systems		
	ELEC 432	Applied Wireless Systems		
	ELEC 480	Selected Topics		
		14 (3-credit) courses	<i>Italics:</i>	<i>Challenge for credit</i>

Start Times: May, September

Minimum time required to complete degree: 8 – 12 months

Program Chart

UCCB Bachelor of Technology Environmental Health			Sir Sandford Fleming Diploma Name	
Winter	ENVH 122	Issues in Environmental Health		
	ENVH 314	Food Hygiene		
	ENVH 395	Epidemiology		
	ENVH 419	Food Borne Diseases		
	ENVI 325	Occupational Hygiene		
	GEOL 315	Hydrogeology		
Summer	ENVH 214	Anatomy and Physiology		
	ENVH 224	Food Quality		
	ENVH 234	Engineering Issues in Environmental Health		
	ENVH 322	Toxicology		
	CIVI 284	Water and Wastewater		
	COMM 109	Communications in the Workplace		
Fall	ENVH 211	Environmental Health Law		
	ENVH 217	Public Health Inspection		
	ENVH 317	Public Health Administration		
	ENVH 421	Occupational Health and Safety Legislation		
	ENVH 441	Biocontaminants in Indoor Environments		
	ENVH 456	Industrial Waste		
	ENVH 466	Integrated Pest Management		
Winter	ENVH 411	Risk Assessment in Environmental Health		
	ENVH 417	Communicable Disease Control		
	ENVH 427	Environmental Health Education		
	ENVH 437	ISO 9000/14000		
	ENVI 315	Air Pollution		
	ENVI 335	Solid Waste Management		
Opportunity to write the Canadian Institute of Public Health Inspectors national certification examination				
25 (3-credit) courses			<i>Italics:</i>	<i>Challenge for credit</i>

Start Times: May, September, January

Minimum time required to complete degree: 16 months (January start)

Program Chart

UCCB Bachelor of Technology Environmental Studies			Sir Sandford Fleming Diploma Name	
Spring	Elective			
	Elective			
	Elective			
Fall	ENGI 205	Engineering Economics		
	ENVI 416	Environmental Impact Assessment I		
	ENVI 436	Engineering for Sustainable Development I		
	ENVI 456	Environmental Auditing Practices		
	Elective			
	ENVI 499	Environmental Research Project		
Winter	ENGI 246	Chemical Engineering		
	ENVI 417	Environmental Impact Assessment II		
	ENVI 437	Engineering for Sustainable Development II		
	Elective			
	Elective			
	ENVI 499	Environmental Research Project continued		
		14 (3-credit) courses	<i>Italics:</i>	<i>Challenge for credit</i>

Concentrations available: Auditing and Risk Assessment
 Policy Analysis
 Sampling and Analysis
 Water Resources and Pollution Control

(note that elective choices must be made in consultation with a faculty advisor to allow graduation with a concentration and may require distance courses and/or extension of the program past the 8-month minimum)

Start Times: September

Minimum time required to complete degree: 8 months

Program Chart

UCCB Bachelor of Technology Manufacturing			Sir Sandford Fleming Diploma Name	
Spring	MECH 365	Robotics	<i>AUT4201</i>	<i>Automation, Robotics, CIM</i>
	MECH 263	CAD/CAM		
	MECH 264	Advanced Manufacturing		
	MECH 273	Metallurgy		
Fall	MANF 411	Quality Management Systems	<i>APD4201</i>	<i>Automotive Quality Design</i>
	MANF 415	Manufacturing Processes and Standards	<i>EML4207</i> <i>EML4329</i> <i>EMS4305</i>	<i>Manufacturing Processes</i> <i>Polymer & Coatings Tech.</i> <i>Metal Forming & Assembly</i>
	MANF 417	Production Cost Control		
	Elective			
	Elective			
Winter	MANF 413	Statistical Process Control	<i>MAT4141</i>	<i>Statistical Analysis - SPC</i>
	MANF 419	Competitive Manufacturing Studies		
	MANF 421	People in Manufacturing		
	MANF 423	Product Synthesis	<i>APD3275</i> <i>APD4302</i>	<i>Advanced Product Design</i> <i>Design Project / Prototyping</i>
	Elective			
		14 (3-credit) courses	<i>Italics:</i>	<i>Challenge for credit</i>

Start Times: May, September, January

Minimum time required to complete degree: 8 – 12 months

Program Chart

UCCB Bachelor of Technology Petroleum			Sir Sandford Fleming Diploma Name	
Spring	PETR 211	Reservoir Engineering		
	PETR 310	Process Chemistry		
	PETR 380	Production Engineering		
	MECH 395	Plant Engineering		
Fall	PETR 426	Management of Technological Innovation I		
	PETR 436	Process Control and Optimization Systems		
	PETR 446	Project Design and Evaluation		
	Elective			
	Elective			
Winter	PETR 427	Management of Technological Innovation II		
	PETR 437	Distributed Control Systems		
	PETR 447	Codes and Specifications in the Petroleum Industry		
	Elective			
	Elective			
		14 (3-credit) courses	<i>Italics:</i>	<i>Challenge for credit</i>

Start Times: May, September

Minimum time required to complete degree: 8 – 12 months