RENEWABLE ENERGY CURRENT PROGRAMS / COURSES

This document was put together by ACCC, if some of the information is incorrect or if you wish to add additional programs/courses or programs in development in the Renewable Energy sector I would be happy to update this list. Please contact Hélène Hardy at hhardy@accc.ca or at 613-746-2222 ext. 3139

BRITISH COLUMBIA AND YUKON

British Columbia Institute of Technology

- Introduction to Photovoltaic 1 and 2 – 3 day course, CESA 0158 & CESA 0159

Camosun College (Contact: Alan Duncan – Chair, Electronics & Computer Engineering – duncana@camosun.bc.ca)

- Electronics and Computer Engineering Technology - Renewable Energy – Diploma – 2 years
- Renewable Energy Systems Course ELEX 121
- Five other courses from Power electronics to embedded Ethernet controllers focus on renewable energy applications.

Vancouver Island University

(Contacts see below)

- Renewable Energy Technology – Certificate - This program is delivered on a part-time basis, fully on-line, over a 3-year period for a total of 30 credits. (Contact: Jennifer Merner at Jennifer.merner@viu.ca)
- Green Building & Renewable Energy Technology, Diploma – 2 year (Contact: Eric Smiley – Coordinator – eric.smiley@viu.ca)

Selkirk College (Contact: Robert McRae, Instructor - rmacrae@selkirk.ca)

- Renewable Energy Technology – Certificate – 1 year. This face-to-face program introduces students to energy conservation and renewable energy technologies. Lectures and labs examine basic theory and application of micro hydro, wind power, solar photo-voltaic and solar thermal technologies as well as ground source heat pumps and biomass energy systems. There is a co-op option and graduates may participate in a North American exchange at partner institutions in Mexico and the US.

Northern Lights College

- Solar Thermal Installer Course – Six day course. - The course also prepares certified plumbers to write the Canadian Solar Industries Association Solar Thermal Certification exam and if successful receive industry certification as well.
- Solar Thermal Installer Train-the-Trainer Course - Two days in length and includes one day of theory and one day installing a solar thermal system.

Okanagan College (Contact: Pat Dandeneau, Manager Apprenticeship Programs – pdandeneau@okanagan.bc.ca)

- Domestic/Residential Certified Georthermal Technician – Two year apprenticeship program
- Domestic/Residential Certified Heating Technician – Two year apprenticeship program

ALBERTA AND NWT

Lakeland College (Contact: Mel Mathison, Dean of Agricultural & Environmental Sciences & Applied Research – mel.mathison@lakelandcollege.ca)

Renewable Energy & Conservation – One year certificate, on-line program. Courses offered two at a time with a facilitator, includes an Introduction to Solar Power along with other renewable energy courses including wind energy, geothermal, and biofuels.

Lethbridge College (Contact: Suzanne Flannigan, Dean of the Centre for Applied Management – Suzanne.flannigan@lethbridgecollege.ab.ca)

- Electrician/Wind Turbine Service Technician Program – 26 weeks certificate (Lethbridge College provides wind turbine technician education with an international certification component)

Northern Alberta Institute of Technology (NAIT) (Contact: David Carpenter – Dean of the School of Electrical and Electronic Technologies – dcarpent@nait.ca)

- Alternate Energy short courses through Continuing Education Department:
  - Geothermal (already running) GEO101 – 5 day course to understand the fundamentals behind ground source and water source heat pump technology. 90% theory and 10% hands-on lab work = 1 filed trip. Industry Certification awarded upon successful completion
  - Building Green with LEED: LEED Canada – NC rating system 1.0ARC50 – A 36 hour course to gain a working knowledge of the Canada Green Building Council's (CaGBC)LEED®Canada for New Construction Rating System 1.0 (LEED®-NC). Key areas of study include: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality (LEED is an accreditation body)

ONTARIO

Algonquin College (Contact Michael Hayes, Academic Manager at hayesm@algonquincollege.com)

- Solar and Wind Power for the Homeowner (GEN5053) is a half-day workshop that introduces students to sustainable practices to be more self-sufficient and less reliant on electricity and fossil fuels.

Cambrian College (Contact: Geoffrey Dalton, Dean, Schools of Business, Computer Studies and Engineering Technology - Geoffrey.Dalton@cambriancollege.ca

- Energy Systems Technology, Advanced Diploma, 3 years

Centennial College (Contact: the Centennial Energy Institute - cei@centennialcollege.ca)

- Energy Systems Technician, Diploma, 3 years
- Energy Systems Engineering Technician, Diploma, 2 years.
- There are also three workshops available :
  - Introduction to Alternative Energy Technologies – 40 hours
  - Hands-on Wind Energy Workshop – 3 weeks
  - Hands-on Solar Energy Workshop – 3 weeks

Conestoga College (Contact: David Garner- Engineering Technology Department - garner@conestogac.on.ca)

- Electrical Engineering Technology, Diploma, 3 years (includes an alternate energy stream)

Durham College (Contact: Don Murdock, Professor/Program Coordinator Energy Audit Techniques/Renewable Energy Technician Programs don.murdock@durhamcollege.ca)

- Energy Audit Techniques, Certificate Program, One Year
- Renewable Energy Technician Program. Diploma, Two Year

LaCité Collégiale (Contact: Félix da Matha Sant'Anna, Professeur et Coordonnateur - Technologie du génie mécanique, Institut des métiers - fdamat@lacitec.on.ca)

- Technologie du génie mécanique offre depuis janvier 2009, un cours sur Les énergies renouvelables (solaire et éolienne). Ce cours fait partie du programme de 3 ans et est enseigné à l'étape 6.

Lambton College (Contact: Henry Reiser, Dean, School of Technology, Applied Science & Apprenticeship – henry.reiser@lambton.on)

- Alternative Energy Engineering Technology Co-Op, Advanced Diploma, 3 years
- Workshops (contact: Maike Luiken maike.luiken@lambton.on.ca)
  - Wind & Solar Hybrids Workshop – Build a Complete System
  - Understanding Sustainability

Humber College Institute of Technology and Advanced Learning (Contact: Kerry Johnston, Professor & Program Manager - Sustainable Energy and Building Technology kerry.johnston@humber.ca)

- Sustainable Energy and Building Technology, Advanced Diploma - 3 years, builds skills and knowledge sets in energy conservation, energy efficiency and the application of renewable electricity (wind, hydro, PV, storage) and heat energy (GeoExchange, solar thermal) technologies.

Mohawk College (Contact: Jay Notay, Associate Dean, Electrical and Computer Engineering Technology – jay.notay@mohawkcollege.ca)

- Bachelor of Technology Partnership – McMaster University & Mohawk College
  - Energy Engineering Technologies – Renewable
  - Energy Engineering Technologies – Nuclear

- Energy systems Engineering Technology – clean and Renewable Energy, Advanced co-op Diploma, 3 years

- Mohawk offers several courses through their continuing education department:
  - Solar & Windpower for the Homeowner
  - Energy Con Design – Solar Energy
  - Solar Collector Design
  - Passive Solar House Design
  - Solar Energy
  - Solar Energy Practical Approach
  - Renewable Energy

Sault College of Applied Arts and Technology (Contact: Colin Kirkwood, Colin, Dean, Natural Environment, Technology & Skilled Trades - colin.kirkwood@saultc.on.ca)

Programs are based out of the Brookfield Renewable Power Training Center located at Sault College. Also Sault College operates a 35 kW Wind Turbine on campus that serves as a student laboratory and research facility.

- Electrical Engineering Technician – Power Generation, Diploma, 2 years
- Several courses through their continuing education department:
  - Home and Small Business Energy Conservation: 7 hours
  - Introduction to Renewable Energy: 7 hours
  - Green Building and Retrofits: 7 hours
  - Install you own Solar Photovoltaic system: 18 hours
  - Customizable courses in Wind Energy

St. Lawrence College (Contact: Don Young, Dean Computer & Engineering Technology - donyoung@sl.on.ca)

- Energy Systems Engineering Technicians, Diploma, 2 years
- Energy Systems Engineering Technologist, Diploma, 3 years
- Wind Turbine Technician/Industrial Electrician Co-op Diploma Apprenticeship, 2 years

Seneca College (Contact: Mary Dawson, Manager of Program Services, Cente for the Built Environment -mary.dawson@senecac.on.ca)

- The Centre for the Built Environment offers distance learning programs in: -
  - Wind Power
  - Geothermal Energy (developed in consultation with next Energy Solutions)
  - Photovoltaic Technology (offered in multiple levels in partnership with the Canadian Solar Industries Association-CanSIA.
  - Biomass (developed as an ACCC on-line initiative in 2004)

- Building Systems Engineering Technology, Diploma, 2 & 3 years - (Renewable Energy is incorporated within this program)

QUÉBEC

Cégep de la Gaspésie et des Iles (Contact : Bernard Hamilton, Conseiller en développement - bhamilton@cgaspesie.qc.ca)

- Mécanique et électronique industrielle - Maintenance d'éoliennes ELC.20 A.E.C. durée : 1395 heures – 58 semaines
- Spécialisation en maintenance d'éoliennes (Wind Technicien Program) – formation post DEC offert aux détenteurs de DEC mécanique ou électronique) durée : 18 semaines

Cégep de Jonquière

- Technologies des énergies renouvelables & rendement énergétique (T.E.R.R.E.) – ELJ.33 – Attestation d'études collégiales (A.E.C.) durée : 1 515 heures de cours plus 630 heures de stages. Comprend les volets : énergie de l'eau ; énergie du vent ; énergie du soleil ; énergie du sol ; Bioénergie ; mesures éconergétiques et nouvelles technologies. Vingt personnes seront sélectionnées à travers le Québec pour suivre cette nouvelle formation multidisciplinaire. Jan 09

ATLANTIC REGION

Collège Communautaire du Nouveau-Brunswick – Bathurst (Contact: Nom : Hubert Arseneau, hubert.arseneau@gnb.ca)

Energie renouvelable – Éolienne- Certificat - 27 semaines (Le programme débutera en novembre 2009)

New Brunswick Community College – Moncton (Contact: Daniel Hebert – Daniel.Hebert@gnb.ca)

- Electrical Engineering Technology – Alternate Energy Systems, Diploma, 2 years – (Encompasses solar, wind and geothermal systems and design).

New Brunswick Community College - Saint John (Contact: Bill Stroud, Department Head - bill.stroud@gnb.ca

- Buildings, Energy and Environment as 2nd year option of Mechanical Engineering Technology Program – Diploma, 2 years (focus on HVAC, wind energy is also covered , looks at Alternative Energy sources and Environmental Planning)

Nova Scotia Community College (Contact: Gordon Wilkie, Faculty Electrical Technologies gordon.wilkie@nscc.ca)

- Energy Sustainability Engineering Technology – Diploma, 2 years

Holland College (Contact: Kent Sheen, Program Manager KSheen@hollandc.pe.ca)

- Wind Turbine Technician Program, Certificate, 9 months.

Renewable Energy - Programs in Development

BRITISH COLUMBIA

Northern Lights College (Contact: Bob Haugan – Continuing Education Coordinator - bhaugen@nlc.bc.ca)

- Alternative energy technology systems – In the planning stage for the new Energy House are: small residential wind and commercial wind, photovoltaic and solar thermal arrays, geo exchange, and biomass systems.

ALBERTA

Northern Alberta Institute of Technology (NAIT) (Contact: David Carpenter – Dean of the School of Electrical and Electronic Technologies – dcarpent@nait.ca)

- Advanced Energy Technology, Diploma Program, 2 years
  - Program under development for launch in Fall 2011
  - Covered topics include Solar PV & thermal, geothermal, wind, bio energy, fuel cell and small hydro technologies; analysis and design; application; project management.

MANITOBA

Assiniboine College (Contact: Derrick Turner, Dean of the School of Agriculture & Environment - turnerd@assiniboine.net)

- Sustainable Energy Technician – Wind Turbine Specialization - New program, pending approval.

ONTARIO

Fleming College (Contact: Catherine Staples, Manager, Environmental & Natural Resources Training - cstaples@flemingc.on.ca)

- Geothermal Drilling, Four month program starting May 2010

Northern College

Plans for Northern College's Centre of Excellence for Trade and Technology were unveiled at its Timmins Ontario campus. The project entails the expansion of 5 state-of-the-art classrooms. The centre will allow the college to provide new and expanded programs to meet the needs of the community, such as an energy audit program and energy systems technician program. Construction is slated to begin this July 09 and the centre is expected to open in fall 2010.

Sault College of Applied Arts and Technology (Contact: Colin Kirkwood, Colin, Dean, Natural Environment, Technology & Skilled Trades - colin.kirkwood@saultc.on.ca)

- Renewable Energy Systems Installer – Ontario College Certificate, 1 year starting Fall 2010

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