

Green Collar Careers Education Reference Guide

| Institution | Program Name | Program Length and Type | Program Overview | Entry Requirements | Career Opportunities | Contact/Web Address |
|--|--|--|---|--|--|---|
| Energy Management and Renewable Energy Programs | | | | | | |
| a) College Programs | | | | | | |
| Centennial College (Toronto) | Aboriginal Education Initiative: Solar Energy Photovoltaics. (Open to First Nations and Metis) | 6 weeks Professional Installation Course Students receive: Centennial College Certificate in Solar Photovoltaic Grid-tied System Fundamentals RETScreen solar PV Technical and Financial Analysis Safe-Tech Certificate of Training in Fall Prevention. | This program teaches the fundamentals of solar powered electrical generation systems and practical applications related to system design. It will also include hands-on installation and safety training. Financial analyses of solar projects will be completed and basic business skills reviewed. This course is only being offered for the 2010/2011 school year. Course activities are expected to end in March 2011. | Ontario Secondary School Diploma (OSSD) or equivalent, or be 19 years of age or older (mature student). Basic level of fitness is required as some work is done outside on rooftops. Open to all Aboriginal participants from across Ontario. | Entry level installer Those seeking further education can use the training to apply for pre-apprenticeship openings in the construction and electrical trades, or apply to diploma courses in the energy sector | Sundeep Khosla Program Coordinator sundeep.khosla@cogeco.ca 416-566-9421 http://www.centennialcollege.ca/aboriginalinitiatives/solar_energy |
| Centennial College (Toronto) | Energy Systems Engineering Technology | 2-3 years Ontario College Diploma Students can graduate as a Technician after the first two years or continue onto paid work experience or follow a purely academic path to an Advanced Diploma | Through the Energy Systems Engineering Technology program, Centennial College teaches you the fundamental skills to understand energy and its uses in modern society. The program offers a unique blend of technical, managerial and entrepreneurial skills that are highly sought after in modern energy and sustainable building companies. You can graduate as a technician after the first two years or continue onto paid work experience or follow a purely academic path to an advanced diploma. Optional applied technology workshops such as Hands-on Solar Workshop available. Courses include: Renewable Energy System Electrical Circuits CAD I/Blueprint Reading Mechanics and Materials Wind and Solar Energy | * Ontario Secondary School Diploma (OSSD) or equivalent, or mature student status * Compulsory English 12C or U or skills assessment, or equivalent * Math 11M or U, or 12C or U or skills assessment, or equivalent * Minimum C grade required for technologist graduation | Green HVAC Technician Energy Consultant Green Building Construction and Design | El-Hedi Maloufi Program Coordinator emaloufi@centennialcollege.ca 416-289-5000 x 2192 www.centennialcollege.ca |
| Humber College (Toronto) | Sustainable Energy & Building Technology (SEBT) program | 3 years (4 semesters of school and a 400 hour co-op placement) Advanced Diploma with co-op | The three-year, multidisciplinary program will position you to work effectively with other professionals in providing truly integrated solutions in the sustainable technologies sectors that deal with energy efficiency and renewable energy. You will be able to assess site characteristics and client needs, provide advice on renewable energy, building design and heating/cooling system alternatives, prove energy efficiency through energy audits and energy performance simulation, cost the energy system and select appropriate suppliers and contractors. Courses include: Construction Drawings Energy Metrics, Surveying and Analysis Electric Circuits Building Science and Thermodynamics Renewable Electricity Technologies Mechanical Systems Building Energy Loads Computer-Aided Design Sustainable Building Design Low Energy Building Systems | * Ontario Secondary School Diploma (OSSD) or equivalent, or mature student status * Grade 12 English (ENG4C or ENG4U) * Grade 12 Mathematics (MAP4C, MCT4C, MDM4U, MCB4U, MGA4U, MCV4U or MHF4U); * Two Grade 11 or Grade 12 C, U or M courses in addition to those listed above | Energy Auditor Energy Consultant Energy Manager | Kerry Johnston Program Coordinator School of Applied Technology kerryjohnston@humber.ca 416-675-6622 x 4512 www.humber.ca |
| Seneca College (Toronto) | Photovoltaic Systems Program (PVS) | 1 year, part time Continuing Education Certificate | Upon successful completion of the PVS program the student will gain a solid understanding of photovoltaic systems technology, site analysis, system design and installation methods in the solar industry. As well the student will be able to establish suitable locations for PV arrays and assemble/install a PV system. Courses include: PV Residential And Small Commercial Grid Connection PV Off-Grid And Remote Power P/Battery Systems Design And Installation PV Farm System & Large Scale Design & Installation | A basic level of electrical background is recommended for students entering this program. Program is designed for individuals who possess an electrical background, such as electricians, electrical engineers, electrical technologists and technicians and electronic technologists and technicians; contractors or persons with no educational credentials but who have work experience in the solar energy industry. | Entry Level PV Solar Installer | Vince Bennici Technology Program Coordinator Faculty of Continuing Education vince.bennici@senecac.on.ca 416-491-5050 x2499 www.senecac.on.ca |
| Willis College (Toronto) | Ontario Solar Energy Technician Course | 2 weeks Career College Certificate Program | This course is designed for current players in the solar industry and prepares participants for the NABCEP Entry Level exam. | None- no prior knowledge necessary | None (would need further education) | Ron Brandt Director, Toronto Centre Lawrence Campus Willis College 416-485-8588 Ron.Brandt@torontocentre.williscollege.com www.williscollege.com |

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| Willis College (Toronto) | PV Technical Sales | 2 weeks Career College Certificate Program | A PV Tech Salesperson is a solar electric professional with demonstrated expertise in the siting, design, analysis, and performance of PV systems who gathers site specific information, analyzes customer needs, and energy usage for the purpose of advising and providing customers with the most appropriate solution for their situation. | None- no prior knowledge necessary | None (would need further education) | Ron Brandt Director, Toronto Centre Lawrence Campus Willis College 416-485-8588 Ron.Brandt@torontocentre.williscollege.com www.williscollege.com |
| Willis College (Toronto) | Photovoltaic Installation Diploma | 16 weeks Career College Certificate Program | This program is designed for electricians looking to gain insight and skills training in the emerging green energy industry. It encompasses technical skills specific to solar PV generation, as well as business and program management skills Courses include: Keys to Success – Learning Skills and Critical Thinking – 2 weeks Electricity for Solar Panel – 2 weeks Microsoft Applications 1 – 5 weeks Sales and Marketing for Green Energy – 2 weeks Solar Energy Technology - Photovoltaic – 4 weeks Job Search Skills – 1 week | Must be a Licensed Electrician | This course is designed as a skills upgrade for licensed electricians looking to gain access to emerging opportunities in solar PV | Ron Brandt Director, Toronto Centre Lawrence Campus Willis College 416-485-8588 Ron.Brandt@torontocentre.williscollege.com www.williscollege.com |
| Willis College (Toronto) | Solar Water and Pool Heating System Diploma | 16 weeks Career College Certificate Program | This program is designed for licensed plumbers looking to gain insight and skills training in the emerging green energy industry. It encompasses technical skills specific to solar thermal technology, as well as business and program management skills Courses include: Keys to Success – Learning Skills and Critical Thinking Plumbing for Thermal Energy Microsoft Applications Sales and Marketing for Green Energy Thermal Energy Technology Job Search Skills | Must be a Licensed Plumber | This course is designed as a skills upgrade for licensed plumbers looking to gain access to emerging opportunities in the solar industry | Ron Brandt Director, Toronto Centre Lawrence Campus Willis College 416-485-8588 Ron.Brandt@torontocentre.williscollege.com www.williscollege.com |
| Cambrian College (Sudbury) | Energy Systems Technology (ESTY) | 3 years | The Energy Systems Technology program prepares students for employment in the sustainable energy field, with a focus on energy systems for residential and small commercial buildings. Students will study energy systems harnessing energy from renewable sources - sun, wind, water, geothermal heat, and biomass - in order to have a sustainable environment that will meet our present needs without compromising the ability of future generations to meet theirs. Topics on energy management, energy efficiency and energy conservation and sustainable building and development are also covered in the program. | * any grade 12 English (C, (U), or (M)) * any grade 12 Math (C, (U), or (M)) (MCT4C is highly recommended) Recommended: * any grade 12 Physics (C, (U), or (M)) * any technology subjects (construction, manufacturing design, transportation) * computer competency in relevant software | Energy Designer Energy Modeller | K. Mina kamina.mina@cambriancollege.ca (705) 566-8101 ext. 7578 www.cambriancollege.ca |
| Durham College (Oshawa) | Renewable Energy Technician | 2 years, full time, (4 semesters) Ontario College Diploma | Renewable energy technicians are part of the rapidly growing field of renewable, sustainable and alternative energy solutions. As an introduction, you will receive a basic exposure to traditional energy consuming systems followed by a solid foundation in the operation of renewable energy systems including solar and wind power and ground source heat pumps. Courses include: Solar Thermal Systems Solar Photovoltaic Systems Energy Battery Systems Durham College also has plans to add additional energy programs, which will be available in 2011. | OSSD, GED, ACE (BTSD) or Mature Student Status (MSS) Plus senior level (Grade 11 or higher) subject credits: * Grade 12 English * Grade 12 mathematics (college technology MCTC4C, general tech MTT4G) * Construction Technology TGJM and/or Manufacturing Technology TMJ4E and/or Technological Design TTJ4C recommended * Computer literacy skills recommended | Renewable Energy Sales Representative Energy Auditor Energy Manager Energy Consultant *An electrical background or further training in the area would be necessary to gain employment as an installer | Don Murdock Program Coordinator Durham College don.murdock@durhamcollege.ca 905-721-2000 x 4069 www.durhamcollege.ca |
| Georgian College (Barrie) | Sustainable Systems Ontario Graduate Certificate program | 1 year Ontario Graduate Certificate | Graduates of this one-year program have the knowledge and experience to transform and lead organizations in the sustainable and profitable use of energy and resources. Building on the skills of their chosen profession, graduates have the demonstrated ability to work in a multidisciplinary team environment in the development of innovative projects that reduce waste, make better use of limited natural resources and use renewable energy. Graduates have an understanding and appreciation of the disciplines outside their own field of expertise. This certificate prepares graduates for work in the public sector; the private sector and in non-government organizations as part of an interdisciplinary team leading projects that focus on the development and implementation of sustainable systems. They may choose careers in the areas of energy auditing, building or equipment retrofitting, devilmint impact assessment, or analyzing, installing, and maintaining renewable energy equipment. Courses include: Energy Regulations and Government Policy Environmental Impact and Sustainability Renewable Energy Siting and Analysis Renewable Energy Systems, Theory and Practice This program has recently been approved and will be offered in Fall 2011. | A college diploma or university degree in the area of Engineering or Science with a strong background in mathematics or equivalent. | This certificate prepares professionals for work energy management and policy-related work in their respective fields- in the public sector; the private sector and in non-government organizations as part of an interdisciplinary team leading projects that focus on the development and implementation of sustainable systems. | Ron Sky, P.Eng. Professor, Engineering Technology Georgian College rsky@georgianc.on.ca 705-728-1968 X 5228 www.georgianc.on.ca |

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| Lambton College (Sarnia) | Alternative Energy Engineering Technology | 3 years | The Alternative Energy Engineering Technology Program is a three year program with a co-op component that provides students with a combination of theory and application skills in current and emerging energy technologies. Graduates will deal with the integration of current energy sources along with newly developing alternative green energy sources and distribution systems. These specialists will be given the technical and applied knowledge in renewable energy concepts combined with energy efficient design principals. Basic computer skills are recommended. | O.S.S.D. or equivalent with: * Grade 12 English, C or U or equivalent * Grade 12 Mathematics C or U * Grade 11 or Grade 12 Physics C or U * Grade 11 or Grade 12 Chemistry, recommended but not required. | Energy Auditor Project Engineer | School of Technology, Applied Sciences, Apprenticeship & Fire Science 519-541-2444 -or- Information Office 519-541-2436 info@lambton.on.ca |
| Mohawk College of Applied Arts and Technology (Hamilton) | Energy Systems Engineering Technology – Clean and Renewable Energy | 3 years + co-op placements Advanced Ontario Diploma | Students will focus on clean energy and renewable energy sources including wind, bioenergy, hydro power, solar photovoltaic, solar thermal, geothermal, strategies for conservation and clean energy supported by micro grids and distributed energy systems. This program is unique in introducing a multi disciplinary approach that focuses on the generation, capture, storage, and distribution of clean and renewable energy and their integration with conventional systems Courses include: Clean and Renewable Energy Technology Smart Metering and Distribution Smart Regulations Energy Management Mohawk College has also been recently approved for an Energy Systems Technician program, which is expected to be available in Fall 2011 | OSSD or equivalent (GED, College and Career Preparation) including: * Grade 12 English, C or U or equivalent * Grade 12 Mathematics, C (Math for College Technology is recommended) or U, or Mohawk College Prep Math for Technology or equivalent | Entry level employment within the electricity sector; HVAC industry, building and construction sector, in various technical support roles related to the manufacture, installation, testing and repair of clean and renewable energy systems, and individual components. | Jay Notay Associate Dean, Electrical and Computer Engineering Technology jay.notay@mohawkcollege.ca 905-575-2142 www.mohawkcollege.ca |
| Sir Sandford Fleming College (Haliburton) | Sustainable Building Design and Construction | 20-week course *course workload is equivalent to a three-semester (45 week) program | Students will gain skills in the design of structures using green, natural or sustainable building methods, technologies and materials and renewable energy resources. Students will have the opportunity to apply, practice, and enhance what they learn in the classroom to real-world situations via the hands-on construction of a sustainable building. | OSSD with the majority of credits at the College (C) and Open (O) level, including: * 2 College (C) English courses (Grade 11 or Grade 12) * Or a current Certificate of Qualification as a Carpenter - General. | Green Building Construction and Design | Chris Magwood cmagwood@fleming.on.ca 1-866-353-6464 www.fleming.on.ca |
| St. Clair College (Windsor) | Energy Systems Design Technology | 3 Year Advanced Diploma | This new program is the first of its kind to be offered in Ontario. It will prepare graduates for careers in energy utilization with a focus on the efficient application, design, control and management of energy conversion systems for industry, buildings and transportation | OSSD with the majority of courses at the College (C), University (U), University/College (M) or Open (O) level plus * Grade 12 Math (C) or (U) * Senior Level Physics (C) or (U) | Energy Manager Environmental Consultant Renewable Energy Technician Industrial Design Engineer | Bill White (519) 972-2727, ext. 4927 email: wwwhite@stclaircollege.ca |
| St. Lawrence College (Kingston) | Energy Systems Engineering Technician and Technology Program | 2 years (technician) or 3 years (technologist) | Unique to St. Lawrence College is Energy House, the site of the Energy Systems Engineering Technology and Technician practical laboratories in renewable energy. Opened in Fall 2005, this off-grid training facility offers a comprehensive selection of renewable energy equipment for hands-on training in solar thermal and photovoltaic, ground source heat pump, small wind, solar air heating, and other sustainable energy technologies. | Ontario Secondary School Diploma or equivalent with the following prerequisite: * Grade 12 Math at the C or U level (or MCR3U or MCF3M) The majority of Grade 11 and 12 courses must be college or university preparation level. | Energy Auditor Solar PV Installer Solar Thermal Installer | Steve Lapp, M.Sc. P.Eng. Coordinator - Energy Systems Engineering Technician (ESET) and Technology Program slapp@sl.on.ca (613) 544-5400 ext. 1528 |
| b) University Programs | | | | | | |
| Brock University | Tourism and Environment | *BA Honours and a BA with Major in Tourism and Environment, both of which are four-year programs *Certificate program in Tourism and Environment for candidates with post secondary degrees (1 year). | The Department of Tourism and Environment strives to foster knowledge of sustainability (environmental, social, economic and political) and the tourism environment. Programs of study are designed for students pursuing careers in tourism administration, environmental management, economic development, or planning in local organizations, multinational corporations or municipal, provincial or national government agencies. | Ontario Secondary School Diploma (OSSD) with an overall average of 70 percent on six Grade 12 U or M courses is the minimum required for consideration, but a higher average will be required for most programs since the number of qualified applicants normally exceeds the spaces available. | Eco-Tourism Guide | Academic Adviser Jeanette Ramsay Administrative Assistant Barb Alexander 905-688-5550, extension 3292 Mackenzie Chown C418 brocku.ca/tren |
| Carleton University | Environmental Science Sustainable and Renewable Energy Engineering | 3-4 year B.Sc program 4 year B.Eng. program | Environmental scientists are key participants in the risk assessments associated with environmental concerns—ones that typically include a combination of biology, chemistry, geology (earth sciences), and geography. Sustainable and Renewable Energy provides analytical, technical and market skills for designing, building, operating, and enhancing sustainable energy systems that combine energy generation, its distribution and end use, in an environmentally responsible and economically beneficial manner. | Environmental Science OSSD or equivalent, including a minimum of six 4 U/M courses. Your six 4 U/M courses must include Advanced Functions or Calculus and Vectors* (*strongly recommended) and two of Biology, Chemistry, Earth and Space Science, or Physics. (Biology and Chemistry are recommended) Sustainable and Renewable Energy Engineering (OSSD) or equivalent, including a minimum of six 4 U/M courses. Your six courses must include four prerequisite courses: ... Advanced Functions ... Chemistry ... Physics ... one of: Calculus and Vectors, Biology, Earth and Space Science | Environmental Impact Assessor Environmental Consultant Environmental Officer Energy Manager Environmental Consultant Renewable Energy Technician | |
| McMaster University | Environmental and Earth Sciences Mechanical Engineering Electrical Engineering Engineering Physics Materials Engineering Mechanics Engineering | 4 year degree program (B.Sc. or B.Eng.) | Human life and society depend critically on environmental resources we all too often take for granted: air, water, soil, and the mineral and organic resources of the earth. With the recent attention given to global warming and climate change, there has been a dramatic increase in scientific research and employment opportunities in this area. McMaster's Faculty of Engineering is committed to identifying new trends in the global engineering profession, and to introducing unique programs to cater to these trends. | Environmental and Earth Sciences Completion of High School Diploma plus; Grade 12 U/M requirements - 6 courses in total, including: * English (ENG4U) * One of: Advanced Functions (MHF4U), Calculus & Vectors (MCV4U) (Calculus & Vectors is strongly recommended) * 2 of the 4 remaining credits must be at the U level Faculty of Engineering Completion of High School Diploma plus; Grade 12 U/M requirements - 6 courses in total, including: * English (ENG4U) * Calculus & Vectors (MCV4U) * Chemistry (SCH4U) * Physics (SPH4U) | Field Engineer Energy Utility Industry Officer Energy Auditor Renewable Energy Technician Manufacturing Engineer Design Engineer Environmental Policy Maker | |

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| Nipissing University | B.A. Environmental Geography | 4 year degree program | Environmental Geography courses examine the ecological principles underlying environmental problems such as climate change, pollution and wetland degradation. | OSSD with a combination of a minimum of six 4U and/or 4M courses. An overall average of 70% on a combination of six 4U and/or 4M courses, including required 4U courses is the minimum required for full-time admission consideration. | City Planner Consultant Officer Environmental Impact Assessor Environmental Environmental | Nipissing University 100 College Drive, Box 5002 North Bay ON Canada P1B 8L7 General Information: Phone (705) 474-3450 Fax: (705) 474-1947 tty: (705) 474-3897 nuinfo@nipissingu.ca |
| Queens University | Bachelor of Science in Environmental Science and Bachelor of Arts in Environmental Studies | 4 year degree programs | The Earth's environment is under stress, and the search for solutions is anything but simple. It requires an interdisciplinary approach to problem-solving and education. Our program emphasizes the diverse contributions of technology, the natural sciences, humanities, and social sciences to understanding and solving environmental problems. | The Ontario Secondary School Diploma (OSSD), and six 4U and M courses. Students in francophone schools may offer the equivalent of English 4U. * Science - English 4U, Advanced Functions 4U, Calculus and Vectors 4U and Biology 4U, Chemistry 4U or Physics 4U * Engineering - English 4U, Calculus and Vectors 4U, Chemistry 4U, Physics 4U, plus one of: Advanced Functions 4U, Biology 4U, Data Management 4U, Computer Science 4U, Earth and Space Science 4U. Final grade in English 4U must be a minimum of 70%. | Environmental Conservationist Natural Resources Management Wastewater Management Environmental Policy Advocate Environmental Policy Analyst | Admission and General Information Email: admission@queensu.ca Phone: (613) 533-2218 Fax: (613) 533-6810 |
| Trent University | Indigenous Environmental Studies Bachelor of Arts (Environmental Studies) Bachelor of Science (Environmental Science) | 2 year diploma | The Indigenous Environmental Studies Program (IES) is an innovative new program at Trent University. IES is a collaboration between the Department of Indigenous Studies (INDG) and the Environmental and Resource Science/Studies Program (ERS), and is designed to give students the necessary skills and knowledge to work in the growing field of Indigenous environmental issues. The Program uses Indigenous knowledge systems, science and information from the social and environmental sciences to explore local, regional, national and international environmental issues impacting Indigenous People. | The two year diploma in IES is open to students of Aboriginal ancestry who have the equivalent of Ontario Grade 12, or qualify as mature students. Applications are reviewed by the Registrar's office and the Indigenous Studies Department. | Environmental Protection Specialist: Water Quality Inspector Park Naturalist Environmental Lawyer Policy Analyst Environmental NGO Program Manager | The Indigenous Environmental Studies Program 1-705-748-1011 ext. 7426 ies@trentu.ca |
| University of Guelph | Environmental Economics & Policy Environmental Governance Environmental Management | 4 year degree program | Gain the interdisciplinary expertise needed to deal with the environmental problems facing our world now and those we will face in the future. Balance scientifically grounded solutions with an understanding of the social and economic consequences of environmental change. | Ontario Secondary School Diploma (OSSD), or equivalent, and a minimum of 6 Grade 12 U/M courses including: * ENG4U * MHF4U * 2 credits from: SBI4U, SCH4U, SPH4U * 2 additional 4U or 4M credits | Environmental Economist Policy Analyst Environmental Officer Environmental Consultant Environmental NGO Program Manager | Environmental Governance Program Coordinator Dr. Ben Bradshaw Hutt: 519-824-4120 ext. 58460 Jonathan Newman Professor & Director, School of Environmental Sciences 1 519 824 4120 ext. 52147 email: jnewman@uoguelph.ca |
| University of Ontario Institute of Technology | Energy Systems Engineering | 4 year degree program | Graduates will be well prepared to work with systems that involve the generation, transmission or utilization of energy. Career opportunities are increasing for graduates in industry, government and non-government organizations. Graduates may also choose to start their own energy enterprise or pursue graduate studies. This program was developed to meet the requirements of the Canadian Engineering Accreditation Board. Graduates will be eligible to apply for licensure as a professional engineer in any Canadian province or territory. | OSSD with a minimum overall average of 70 per cent in six 4U or 4M credits, including: * English (ENG4U); * Physics (SPH4U); * Chemistry (SCH4U); * Advanced Functions (MHF4U); and * Calculus and vectors mathematics (MCV4U). | Energy Manager Environmental Consultant Renewable Energy Technician | Joanna Campbell Academic Advisor Faculty of Engineering and Applied Science (905)721-8668 Ext:2971 E-mail: joanna.campbell@uoit.ca |
| University of Ottawa | Environmental Law | | Environmental issues have always been of concern from the perspective of public interest law and in recent years arise increasingly in relation to other areas of practice including corporate and administrative law, municipal and planning law, and real estate transactions. It is impossible, as Canada and other nations address climate change, global warming and the Kyoto Protocol to read or listen to daily news without encountering significant environmental law issues. Whether you hope to devote a career to some of these matters, expect to encounter them from time to time, or simply wish to pursue a personal interest, environmental law courses are essential. | * At least three years of university studies is preferred. Students are strongly encouraged to complete their undergraduate program of study prior to beginning law school. * Successful completion of the Law School Admission Test (LSAT). Students applying to the French program of the Common Law Section of the Faculty of Law do not write the LSAT. | Environmental Lawyer Policy Advocate Policy Analyst | comlaw@uOttawa.ca Tel.: (613) 562-5800 ext.3270 Fax: (613) 562-5124 |
| University of Waterloo | Environment and Business | 3 and 4 year degree programs | Addresses the huge need for sustainability professionals by producing knowledgeable and experienced graduates—people who know the tools of business and sustainability and who have experience gained through paid co-op work terms. Graduates leave with all the foundations of a business degree - economics, finance, accounting, management and marketing. They also are provided with an environmental education including field ecology, human geography and environmental research techniques. Most significantly, integrated courses show how businesses can be both sustainable and profitable. | OSSD Required courses: Grade 12 U English (at least 70% normally required) Recommended courses: One Grade 12 U Mathematics, one Grade 12 U Science, Principles of Financial Accounting, Analyzing Current Economic Issues Admission average: Low 80s | Sustainability Manager Green Business Development Manager Green Entrepreneur | |
| University of Western Ontario - Center for Environment and sustainability | Environmental Science (Baccalaureate of Science, Faculty of Science) Environmental Engineering (Baccalaureate of Engineering, Faculty of Engineering) Environmental Studies (Major and Minor programs, Faculty of Social Science) | 3 and 4 year degree programs | The science underlying environmental issues including climate change, waste management, endangered species and spaces, air and water quality, and ecosystem health, is presented and discussed from a variety of perspectives. | Ontario Secondary School Diploma and: * Completion of six Grade 12 U and/or M level courses. * Completion of ENG4U * Completion of required prerequisites as specified by Western. * Satisfactory completion of the Literacy Test. * An admission average including all prerequisite courses as specified by Western. | Sustainability Manager Environmental Consultant Environmental Policy Analyst | Dr. Christie Stewart Email: cstewa26@uwo.ca Phone: 519.661.2111 ext. 89034 |
| Wilfred Laurier University | Environmental Science (BSc) Environmental Studies (BES) | 3 and 4 year degree programs 1 year graduate courses | The Department of Geography and Environmental Studies offers eight different degrees in Physical and Human Geography, as well as a degree in Environmental Studies. Regardless of the individual degree pursued, all of our degree programs prepare students to establish themselves in a variety of stimulating careers ranging from environmental consulting to teaching, from planning to intelligence work, and from public administration to development work overseas. | A minimum of 6 Grade 12U and/or Grade 12M (U/C) courses are required for admission. Laurier will use the top 6 grades from these courses when calculating the admission average, unless otherwise noted. The following course requirements are listed according to the New Ontario Curriculum. PLEASE NOTE: Grade 12U English must be at a minimum of 60% for all programs at Laurier unless otherwise specified. Applicants must also meet program-specific requirements; all required courses, listed below, must be at a minimum of 60% unless otherwise specified | Environmental Protection Specialist: Water Quality Inspector Park Naturalist Environmental Lawyer Policy Analyst Environmental NGO Program Manager | Marilyn Watson email: Office of the Registrar phone: 519-884-0710 ext: 6095 |

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| York University | Environmental Studies (BES) with Specialization in: Environmental Politics: Development, Globalization and Justice Urban & Regional Environments: Analysis, Planning and Design Environment & Culture: Philosophy, Arts, Technology and Education Environmental Management: Policy, Resources and Conservation | 3 and 4 year degree programs | So what exactly is Environmental Studies? At York, we look at the environment as being everything, and we mean everything, that surrounds us. We define environment broadly to include interdisciplinary understandings of political, social, cultural, natural and organizational issues. Our approach of studying both local and global environments means that we look at the world that surrounds us for ways to incorporate sustainable change in everyday living. | OSSD and a minimum of six Grade 12 4U or 4M courses, including ENG4U (Francophone applicants can present FRA4U, FEF4U or FIF4U instead of ENG4U) | Environmental Impact Assessor Environmental Consultant Environmental Officer Environmental Policy Analyst Sustainability Manager | York University Office of Admissions Bennett Centre for Student Services 99 Ian MacDonald Blvd Toronto, ON CANADA M3J 1P3 Tel: 416-736-5000 Fax: 416-736-5536 |
| University of Toronto | Environmental Engineering - Faculty of Applied Science and Engineering | 4-year Bsc Undergraduate Program | Environmental engineers play a pivotal role in improving polluted environments, designing facilities that directly affect our modern economy, public health and safety, and designing environmentally responsible products and processes. Their knowledge of physics, chemistry, and biological processes allows them to address problems such as protecting air, water and land quality; providing safe drinking water; treating and disposing of industrial wastes; preventing environmental problems by designing "cleaner" manufacturing processes; and developing alternative energy sources. Engineers with a firm knowledge of environmental processes and solutions are widely sought after by employers in both industry and government. | * Completion of Ontario Secondary School Diploma or equivalent, and: Six required courses: * English (ENG4U) * Calculus and Vectors (MCV4U) * Chemistry (SCH4U) * Physics (SPH4U) One of: * Advanced Functions (MHF4U)* * Mathematics of Data Manager (MDM4U) * Biology (SBI4U) * Earth and Space Science (SES4U) * Geometry and Discrete Mathematics (MGA4U) * 1 additional U or M course | Environmental Engineer Environmental Policy Analyst | Engineering Undergraduate Admissions Office engineering@ecf.utoronto.ca 416-978-0120 |
| c) Private Training Institutions | | | | | | |
| Infinite Solar (Mississauga) | 5-Day Entry Level Solar PV Design and Installation Course | 5 days (Total of 40 hours of professional training) Professional Installation Workshop | Our Entry Level Solar PV Design and Installation Course covers the fundamentals, concepts and theories of photovoltaics. This class will review the design, installation, and evaluation of residential and small commercial solar photovoltaic (PV) systems. The solar PV installation training course is based on standards set by IREC and includes site evaluation tools and techniques, solar electric component operation and connection, system design and sizing, and standard requirements and practices. Our hands-on solar training lab covers the common steps of residential and small commercial solar installations and provides students with the skills and experience necessary to successfully install solar PV systems. Infinite Solar also has plans to develop an intermediate level course that would prepare participants for the NABCEP Certified Installer exam, but are awaiting policy developments with regard to PV training standards in Canada. | Basic computer skills Familiarity with equations, fractions & algebra Ability to safely lift 50 lbs. Background in solar is helpful and being familiar with electricity basics is expected | Entry Level PV Installer | Infinite Solar 1-289-801-1880/ 1-215-667-1267 www.infinite-solar.ca |
| Infinite Solar (Mississauga) | 2-Day Solar PV Hands-on Workshop (This is the SAME workshop as above but without the in-class portion) | 2 days. (Total of 10 hours of professional training) Professional Installation Workshop | The goal of this intensive hands-on training workshop is to give our students in-depth exposure to various solar PV system installations. Our hands-on solar training lab covers the common steps of residential and small commercial solar installations and provides students with the skills and experience necessary to successfully install solar PV systems. | Prior solar technology knowledge. If you are not already in the industry/have taken a introductory course, you need to take the 5 day course instead. | Entry Level PV Installer | Infinite Solar 1-289-801-1880/ 1-215-667-1267 www.infinite-solar.ca |
| Schuco Solar (Mississauga) | Solar Photovoltaic Training (2 day course) | 2 days Professional Installation Workshop Students receive a Certificate of Completion | This workshop occurs over 2 days at the Schuco Canada facility in Mississauga. Participants spend 1.5 days in the classroom learning the theoretical background of solar PV technologies. The final afternoon is spent in their hands on learning lab where participants complete installations of solar thermal projects on both flat and titled roof as well as grid hook up. At the end of the course, participants are required to write an exam. Upon successful completion of the course and exam, participants receive a Certificate of Completion from Schuco. | None. A background knowledge of solar and electrical systems is recommended. | PV Installer | Susan Muschett Registrar Schuco Solar SusanMuschett@schuco-usa.com 860-616-0128 www.schuco.com |
| Canadian Renewable Energy Academy (Vaughan) | 5-day solar PV Workshop | 5 days. (3 days in-class and hands-on, 2 full days of hands-on) Professional Installation Workshop | This workshop is designed to provide participants with the knowledge and tools required to grasp both business and technical aspects of solar photovoltaic integration. CREA's initiative to bring a standard of education to the Ontario market place is embodied by this workshop; to this end the workshop has been created by not only industry professionals in order to ensure technical aptitude of the graduate but it has also been afforded guidance from education specialists to ensure that a graduate, the individual can be assured that the certificate of completion will ensure regulatory compliance as the sector and trade of solar PV installation is established here in Ontario. | Basic computer skills Grade 10 Math Ability to safely lift 50 lbs. | An electrical background or further training in the area would be necessary to gain employment as an installer | Eddie Della Mora Founder and Director Canadian Renewable Energy Academy 647-832-0553 www.renewableenergyacademy.ca |
| Efan Green (Markham) | Planning & Installing Solar PV Systems with Hands-on Training | 5 days Professional Installation Workshop | This course will provide an overview of the three basic PV system applications, primarily focusing on grid-direct systems. The goal of the course is to create a fundamental understanding of the core concepts necessary to work with all PV systems, including: system components, site analysis, PV module criteria, mounting solutions, safety, and commissioning. The course will also cover the basics of sizing a residential grid-direct system, wire sizing, overcurrent protection, and grounding. This workshop is run intermittently. Check website for course availability and schedule. | Knowledge of basic math. No solar or electrical experience necessary. | An electrical background or further training in the area would be necessary to gain employment as an installer | Efan Green services@efan.ca 1-877-471-EFAN (3326) www.efan.ca |

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| Institution | Program Name | Program Length and Type | Program Overview | Entry Requirements | Career Opportunities | Contact/Web Address |
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| Kortright Centre (Woodbridge) | Green Energy Introduction | 1 day Introductory Seminar (overview of general concepts, resources, technologies and practices) | Technologies covered in this program include solar (photovoltaic), wind electrical energy and domestic solar hot water systems. The objective is to enable home or cottage owners to decide what technologies make sense for them, considering their own motivations and resources available. Motivations such as energy independence, energy security, environmental impact and economic investment for using each technology will be discussed | None | None. This workshop is designed to give home owners awareness of the various green energy technologies that can reduce their domestic energy use | Svend DeBruyn Program Instructor/Developer sdebrum@trec.on.ca 905-832-2289 www.kortright.org |
| Kortright Centre (Woodbridge) | Photovoltaic Generation | 1 day Technology Seminar (hands-on seminar that expands on a specific renewable energy technology or building design concept) | This course is an introduction to the fundamentals of photovoltaics (PV). Whether you would like to become an educated consumer, or are considering a career in the industry, PVG will provide you with the basic theory of photovoltaics including practical applications and installation. The course discussions will include PV generation in grid tied and off-grid applications and the Feed in Tariff (FIT) program as it relates to the Green Energy Act of Ontario. | Completion of Kortright's Green Energy Introduction Seminar | None (would need further education) | Svend DeBruyn Program Instructor/Developer sdebrum@trec.on.ca 905-832-2289 www.kortright.org |
| Kortright Centre (Woodbridge) | Utility PV Installation | 1 day Technology Seminar (hands-on seminar that expands on a specific renewable energy technology or building design concept) | The Utility PV Installation course offers participants a hands-on opportunity to assemble and install a grid-tied PV system. The course begins with the theory of site assessment, installation and system sizing. Participants are then broken into small groups and are able to assemble a complete grid-tied system. The equipment used in this workshop is representative of systems currently being installed under the FIT program throughout Ontario. The majority of the course will be spent outdoors; participants should dress appropriately for the weather. | Completion of Kortright's Photovoltaic Generation Workshop | None (would need further education) | Svend DeBruyn Program Instructor/Developer sdebrum@trec.on.ca 905-832-2289 www.kortright.org |
| Kortright Centre (Woodbridge) | Photovoltaic Training Course | 5 days Professional Installation Workshop Students receive: Certificate of Course Completion on behalf of Kortright Certificate of Training in Fall Prevention. | To meet the growing demand for trained installers and educators, Kortright has developed a new five day training session that includes theory, hands-on laboratory and installation components that prepare you to write the NABCEP (North American Board Certified of Energy Practitioners) entry level certification exam, to enter into the growing solar energy marketplace. | None | An electrical background or further training in the area would be necessary to gain employment as an installer | Svend DeBruyn Program Instructor/Developer sdebrum@trec.on.ca 905-832-2289 www.kortright.org |
| Kortright Centre (Woodbridge) | Solar Domestic Hot Water | 1 day Technology Seminar (hands-on seminar that expands on a specific renewable energy technology or building design concept) | This intermediate-level workshop assists participants with the selection and purchase of a solar water system, and goes into more detail about the function of various domestic hot water systems. Both year-round and seasonal systems will be covered. Thermosiphon, integrated storage, drain-down, drain-back, closed-loop, and systems utilizing heat exchange fluids will be covered. Packaged, as well as component systems, will be reviewed. A tour of the various Solar Domestic Hot Water systems at Kortright will be taken. | Completion of Kortright's Green Home Introduction Seminar | None (would need further education) | Svend DeBruyn Program Instructor/Developer sdebrum@trec.on.ca 905-832-2289 www.kortright.org |
| Ontario Solar Academy (Markham) | 5-Day Solar PV Design and Installation Course | 5 days Professional Installation Workshop Passing a final exam qualifies students for Ontario Solar Academy's "Solar Professional Certificate: Level One." | Course covers fundamental knowledge and reviews the design, installation, and evaluation of residential and commercial solar photovoltaic (PV) systems. The solar training, based on the NABCEP learning objectives, includes site evaluation tools and techniques, solar electric component operation and connection, system design and sizing, and standard requirements and practices. This special Ontario Solar Academy course guides students from system fundamentals to advanced mechanical and electrical concepts in accordance with Electrical Code requirements in Ontario. | Basic computer skills Familiarity with equations, fractions & algebra Ability to safely lift: 50 lbs. | Entry Level PV Installer | Tammy Phelan Registrar Ontario Solar Academy tammy@solaracademy.ca 416-900-7191 |
| Ontario Solar Academy (Markham) | 2-Day Advanced Solar PV Design and Electrical Code | 2 days Professional Installation Workshop | Course covers in depth coverage of inverter string sizing, wire sizing, system design and installations that follow local electrical code for residential and commercial solar photovoltaic (PV) system | Requires a solid foundation in solar technology. Successful completion of 5-Day Solar PV Design and Installation Course (or similar) is highly recommended (see above). | Entry Level PV Installer | Tammy Phelan Registrar Ontario Solar Academy tammy@solaracademy.ca 416-900-7191 |
| d) Industry Organizations | | | | | | |
| International Brotherhood of Electrical Workers | Solar Photovoltaic Training Course (Level 1) "Sun as a Source of Fuel" | 3 hours over 10 weeks. Offered on weekday evenings. Professional Installation Workshop (In-class) Students receive a Certificate of Completion from the IBEW | This course is offered through the IBEW Education Department at their Training Centre. It is available ONLY to members of the IBEW and participants must be qualified Journeymen Electricians or senior level apprentices. Level One is a 30-hour course that takes place over 10, 3 hour weekday evening classes. It is a theoretical, in-class course that covers various aspects of PV installation including: health and safety, hazardous awareness, electronics review, AC/DC inverters, the feed-in-tariff program, environmental considerations, etc. | Must be a member of the IBEW and participants must be qualified Journeymen Electricians or senior level apprentices. | This course is designed as a skills upgrade for licensed electricians looking to gain access to emerging opportunities in solar PV | Paul Barber Project Manager IBEW, Local 353 barberpaul@sympatico.ca 416-510-3530 www.ibew353.org |
| International Brotherhood of Electrical Workers | Solar Photovoltaic Training Course (Level 2) "Sun as a Source of Fuel" | 8 hours over one weekend day Professional Installation Workshop (Hands-on) Students receive a Certificate of Completion from the IBEW | This course is offered through the IBEW Education Department at their Training Centre. It is available ONLY to members of the IBEW and participants must be qualified journeymen electricians or senior level apprentices. Level Two is a one day weekend course that deals with the physical installation of solar PV. This occurs in their skills lab. This course is currently in development. | Must have completed Level 1. Must be a member of the IBEW and participants must be qualified Journeymen Electricians or senior level apprentices. | This course is designed as a skills upgrade for licensed electricians looking to gain access to emerging opportunities in solar PV | Paul Barber Project Manager IBEW, Local 353 barberpaul@sympatico.ca 416-510-3530 www.ibew353.org |

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| Institution | Program Name | Program Length and Type | Program Overview | Entry Requirements | Career Opportunities | Contact/Web Address |
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| Association of Canadian Community Colleges (ACCC) | ACCC received funding from the Ministry of Natural Resources to develop solar PV and solar thermal curriculum. For more information on ACCC, please see Appendix | Courses are designed to be delivered in 65 to 70 hours Course Curriculum for Solar PV These courses were developed to give colleges support in delivering courses that will expand the development of the solar industry in Canada and provide a trained workforce across the country. The project's objective is to offer standard solar curriculum that is relevant and consistent on a national level. For requests to review ACCC curriculum, please contact Don Young (see right) | ACCC Course Curriculum details 3 PV Courses: PV Residential and Small Commercial Grid Connection System Design and Installation. Through a series of lecture and labs this course will introduce the students to the design and installation concepts of a PV System. Students will be introduced to solar insolation characteristics; PV panel theory, construction and performance; site analysis; battery types, PV charge control types; electrical integration; utility tied regulations installation and safety; and an introduction to national and international incentive programs. PV for Electricians: Residential and Small Commercial Grid Connection System Design and Installation. As above. PV Stand Alone and Off-Grid Systems Design And Installation. Through a series of lecture and labs this course will introduce the students to the design and installation concepts of a PV Stand Alone and an Off Grid System. Students will be introduced to site analysis: Electrical load calculations, Battery calculations, PV and Battery sizing, Generator integration, and Microgrid options. This course curriculum was released and made available to ACCC's member colleges in late 2010. Please see Appendix for a list of colleges that have requested this curriculum. | PV Residential and Small Commercial Grid Connection System Design and Installation Prerequisites are determined by individual colleges, although previous knowledge of electrical principles is highly recommended. PV for Electricians: Residential and Small Commercial Grid Connection System Design and Installation Prerequisites are determined by individual colleges, although previous knowledge of electrical principles is highly recommended. PV Stand Alone and Off-Grid Systems Design And Installation Completion of PV Residential and Small Commercial Grid Connection System Design | N/A- as determined by individual colleges | Don Young, PEng Dean, Faculty of Applied Science St. Lawrence College donyoung@sl.on.ca 613-544-5400 x 1530 www.stlawrencecollege.ca |
| Association of Canadian Community Colleges (ACCC) | ACCC Course Curriculum details 4 Courses (see right) | Courses are designed to be delivered in 45 to 50 hours. Course Curriculum for Solar Hot Water These courses were developed to give colleges support in delivering courses that will expand the development of the solar industry in Canada and provide a trained workforce across the country. The project's objective is to offer standard solar curriculum that is relevant and consistent on a national level. For requests to review ACCC curriculum, please contact Don Young (see right) | Courses include: Residential Solar Hot Water System Installer. Through a series of lectures and labs, this course will provide students with the background knowledge and hands-on skills necessary to install a residential solar hot water system. Topics covered include: types of collectors, types of systems, roof top installation methods, collector piping, storage, pumping, commissioning, and controls. This is a course for installers of small packaged systems. Residential Solar Hot Water Design. Students will explore residential solar hot water applications and learn how properly design them to meet a portion of the clients heating load. Computer aided modeling software, such as Natural Resources Canada's RETScreen, will be used extensively throughout the class, with the expectation that students will be capable of analyzing potential projects using site collected data Commercial Solar Hot Water Installer. Students will explore commercial solar hot water applications and learn how properly plan, and install them. Commercial Solar Hot Water Design. Students will explore commercial solar hot water applications and learn how properly design them to meet a portion of the clients heating load. Computer aided modeling software, such as Natural Resources Canada's RETScreen, will be used extensively throughout the class, with the expectation that students will be capable of analyzing potential projects using site collected data. This course curriculum was released and made available to ACCC's member colleges in late 2010. Please see Appendix for a list of colleges that have requested this curriculum. | Residential Solar Hot Water System Installer None Residential Solar Hot Water Design • Solar Hot Water Installers Course (Level I) • Working computer knowledge. • Experience using the Microsoft Office or equivalent software (e.g. Open Office). • High school or equivalent math. • Verbal and written communication skills. Commercial Solar Hot Water System Installer As above Commercial Solar Hot Water Design As above | N/A- as determined by individual colleges | Don Young, PEng Dean, Faculty of Applied Science St. Lawrence College donyoung@sl.on.ca 613-544-5400 x 1530 www.stlawrencecollege.ca |
| CanSIA | CanSIA Solar Hot Water System Installer Workshop | 1 day Professional Solar Thermal Hot Water Installer Workshop | This course will provide the cognitive skills that are required to install solar hot water systems and is a requirement of the CanSIA Canadian Solar Hot Water System Installer Certification program. This workshop provides a review of installation procedures, practices and requirements. Included in the workshop cost are two CanSIA manuals; STT 100 – Fundamentals, and STT 200 – Installation, Maintenance and Design. Workshop is offered intermittently through the Kortright Centre | You do not have to be an experienced installer or a licensed plumber to participate in this workshop. However you must obtain installation experience in order to become a CanSIA certified installer. Inexperienced installers who take this course may complete the experience requirements at a later time. | None (would need further education) | Jen Kennedy Administrative Assistant CanSIA info@CanSIA.ca 1-866-522-6742 x 221 www.CanSIA.ca |
| Solar PV Certification Programs | | | | | | |
| CSA Standards and NETCO (National Electrical Trade Council) | Certified Construction Electrician- Solar Photovoltaic Systems | Dependent on experience, applicants must fulfill all requirements in order to qualify for certification Professional Certification Program- Solar Photovoltaic Systems | CSA Standards is developing a certification for individuals who are qualified construction electricians who install and maintain solar photovoltaic (PV) power generation systems and equipment for use in settings such as industrial, commercial, institutional, power generation and residential settings in compliance with appropriate codes, standards and industry best practices. The program is designed to: • Ensure that construction electricians who install and maintain Solar PV systems have the demonstrated knowledge and skills to competently perform the tasks required for this line of work • Promote national standards across Canada necessary for the safety, quality, reliability and consumer acceptance of Solar PV installations This certification is designed for licensed Construction Electricians, and is expected to be available by summer 2011 | Pre-requisites: Candidates interested in testing for this certification must have the following experience: • Construction Electrician (NOC 7241) Certificate of Qualification • Completion of a recognized Solar PV specific training program consisting of in-class and hands-on instruction (program's curriculum will be assessed to ensure it aligns with exam contents) • Successful completion of the Construction Electrician- Solar PV Systems Examination | Certified Construction Electrician- Solar Photovoltaic Systems | Miles Murphy Product Manager, Personnel Certification miles.murphy@csa.ca 416-747-2320 |

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| Institution | Program Name | Program Length and Type | Program Overview | Entry Requirements | Career Opportunities | Contact/Web Address |
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| North American Board of Certified Energy Practitioners (NABCEP) | PV Installer Certification | Dependent on experience, applicants must fulfill all requirements in order to qualify for certification Professional PV Installer Certification program | The NABCEP PV installer certification is a voluntary certification that provides a set of national standards by which PV installers with skills and experience can distinguish themselves from their competition. Certification provides a measure of protection to the public by giving them a credential for judging the competency of practitioners. NABCEP Certified PV Installers are highly experienced individuals who have passed a rigorous examination and have demonstrated the capability to supervise complete PV system installations, and who have a detailed working knowledge of the electrical codes, standards and accepted industry practice associated with PV installations. The target candidate for NABCEP certification is the person responsible for the system installation (e.g., contractor, foreman, supervisor, or journeyman). *While NABCEP is the recognized "gold standard" for solar PV and solar thermal installation in the US, it currently does not hold the same status in Canada | To qualify as a NABCEP Certified PV Installer, applicants must have: a) Experience installing PV systems occurring at some point in the two (2) years prior to submitting an application for the exam in addition to the completion of 40 hours cumulative of training. OR b) Be an existing licensed contractor in good standing in solar or electrical construction-related areas with experience installing PV systems occurring at some point in the two (2) years prior to submitting an application for the exam in addition to the completion of 40 hours cumulative of training; OR c) Four (4) years of electrical construction-related experience working for a licensed contractor, including experience installing PV systems occurring at some point in the two (2) years prior to submitting an application for the exam in addition to the completion of 40 hours cumulative of training. -OR d) Three (3) years experience in a U.S. Dept. of Labor-approved electrical construction trade apprenticeship program, including experience installing PV systems occurring at some point in the two (2) years prior to submitting an application for the exam in addition to the completion of 40 hours cumulative of training; OR e) Two (2)-year electrical construction-related, or electrical engineering technology, or renewable energy technology/technician degree from an educational institution or four (4)-year construction-related or engineering degree from an educational institution, including experience installing PV systems occurring at some point in the two (2) years prior to submitting an application for the exam AND f) Successful completion of the NABCEP PV Installer Certification examination | Solar PV Installer | N/A |
| Solar Thermal Certification Programs | | | | | | |
| CanSIA | CanSIA Solar Hot Water System Installer Certification | Dependent on experience, applicants must fulfill all requirements in order to qualify for certification Professional Solar Hot Water Installer Certification | CanSIA has developed this program for both new and experienced members of the solar industry in anticipation of federal, provincial and municipal programs supporting the deployment of solar domestic hot water systems for residential applications. This will insure that SHW installations are done by professional and trained installers and will provide guidelines on who can install government supported systems. Natural Resources Canada (NRCan) has funded the development of this certification. | To become a CanSIA Certified Solar Hot Water System Installer you must: a. Successfully complete Roof/Fall Safety course b. Successfully complete CanSIA SHW System Training c. Be a provincially licensed plumber OR accredited pipe fitter OR accredited HVAC technician AND have experience installing two (2) SHW systems Or Have experience installing four (4) SHW systems. d. Successfully completed the CanSIA SHW System Installer (Level 1) Examination | Certified Solar Hot Water System Installer | Jen Kennedy Administrative Assistant CanSIA info@CanSIA.ca 1-866-522-6742 x 221 www.CanSIA.ca |
| North American Board of Certified Energy Practitioners (NABCEP) | Solar Thermal Installer Certification | Dependent on experience, applicants must fulfill all requirements in order to qualify for certification Professional Solar Thermal Installer Certification program | The NABCEP solar thermal installer certification is a voluntary certification that provides a set of national standards by which solar thermal installers with skills and experience can distinguish themselves from their competition. Certification provides a measure of protection to the public by giving them a credential for judging the competency of practitioners. It is not intended to prevent qualified individuals from installing solar thermal systems nor to replace state licensure requirements. *While NABCEP is the recognized "gold standard" for solar PV and solar thermal installation in the US, it currently does not hold the same status in Canada | To qualify to sit for the NABCEP Solar Thermal Installer Certification examination, the candidate must demonstrate that he/she meets at least ONE of the following minimum entry requirement tracks: 1.-a) Four (4) years of experience installing Solar Hot Water Systems. OR 1.-b) Two (2) years of experience installing Solar Pool Heating Systems in addition to completion of a board-recognized training program. OR *Note: It is necessary to choose only ONE of the two requirements listed in category "1" above, if this is your chosen category. 2.) Two (2) years of experience installing Solar Thermal Systems in addition to completion of 40 hours cumulative of training; OR 3.) Be an existing licensed contractor in good standing in solar or construction-related areas with one (1) year of experience installing Solar Thermal Systems; OR 4.) Four (4) years of HVAC, mechanical, pipe-fitting or plumbing-related experience working for a licensed contractor, including one (1) year of experience installing Solar Thermal systems OR 5.) Three (3) years experience in a government/trade union-approved construction trade apprenticeship program, including one (1) year of experience installing Solar Thermal Systems OR 6.) Two (2) year construction related, or engineering technology, or renewable energy technology/technician degree from an accredited educational institution plus one (1) year of experience installing Solar Thermal Systems OR 7.) Four (4) year engineering degree from an accredited educational institution, including (1) year experience installing Solar Thermal Systems OR 8.) NABCEP's Solar PV Installer Certification AND 16 hours of Board-recognized training AND include installation of at least two solar hot water systems. These two systems require permitting and inspection process by a permitting authority - OR - in the absence of such, an appropriate underwriter authorized to provide an inspection certificate. In regions where neither of these inspection options exist, the Application Review Committee will judge experience based on supplied documentation. 9) Successful completion of the NABCEP Solar Thermal Installer examination | Certified Solar Thermal Installer | N/A |