

Sustainable Building Design and Construction



Program Location:	Haliburton
Program Code:	SBD
Contact:	Ted Brandon
Credential:	Ontario College Certificate
Start Date:	April 07, 2014
Tuition Fees:	\$4,152.75 per semester. Tuition and fees subject to change.

The Sustainable Building Design and Construction program is an intensive, hands-on experience that puts students at the centre of the construction of a full-sized sustainable building.

Program Highlights

Fleming is the first College in Canada to offer a Sustainable Building Design and Construction program. The 20-week program, based out of the Haliburton Campus, is an intensive, hands-on experience where up to 26 students from across Canada will construct a new sustainable building, showcasing green building technologies and new energy-saving techniques.

Students interact with project consultants, inspectors, and tradespeople and are involved in all aspects of constructing a sustainable building. Students will learn how to balance “natural” and modern green building material and techniques to achieve the building’s sustainable goals in an appropriate and responsible manner.

In April, 2013, Fleming College’s Sustainable Building Design and Construction program partnered with the Municipality of Highlands East to build a new 2,000 square-foot library in Wilberforce.

Core to the Public Library’s statement of values is sustainability; creating a progressive and sustainable facility in Wilberforce with its proximity to the community gardens and the elementary school, proved to be ideal project for the Sustainable Building and Design program students.

In 2014 the program is partnering with the Bancroft Community Transit to build a new 1,500 square-foot Youth Enterprise Centre in Bancroft Ontario. This centre will allow local youth to develop entrepreneurial skills as they operate a canteen and recreational equipment rentals shop in Bancroft’s Riverside Park

Established in 2005, students in the Sustainable Building Design and Construction program have successfully completed a wide variety of sustainable projects including the ones listed below.

Past Projects:

- 2012 Creative Exchange Mart, Abbey Gardens Community Trust
- 2011 Camp Maple Leaf for Military Families, Jacob's Island, Pigeon Lake
- 2010:Habitat for Humanity LEED Platinum Certified Home
- 2009: Camp Kawartha Environment Centre
- 2008: Madoc Performing Arts Centre
- 2007: R.D. Lawrence Place
- 2006: Classroom for Kinark Outdoor Centre

- 2005: Haliburton 4C's Food Bank and Thrift Shop

What You Learn

The curriculum of this program is unique in the world. Rather than focusing on niche, or specializations within the sustainable building field, we graduate people who are strong generalists with real employability skills.

- You learn what considerations factor into the current design, and how to approach and complete future designs
- You'll get direct experience with all phases of the construction of a project while implementing a sustainable design
- You will take on a leadership role for core components of the project; from design considerations, to pricing and sourcing materials, to installation
- You will learn from leaders in the field and work alongside our faculty experts

Success Stories

"As a past graduate of Fleming's Sustainable Building Design and Construction program, I wanted to share my experience of the course and what it has to offer future students. The course is an excellent combination of theory and practical skills. Students are educated in class and then given the opportunity to experience their acquired knowledge on site. Students learn first-hand sustainable construction practices, are introduced to renewable energies, and are given the freedom to not only think for themselves, but act as a leader experiencing the entire process.

The Instructors come from a diverse variety of construction backgrounds, complimenting the principals behind sustainable building. The course allows its students to develop their personal morals and judgement towards their interest within the industry." **Joshua Parlett**, Assistant Superintendent EllisDon

Why Choose Fleming?

- Accredited Ontario College Certificate
- Ontario Student Assistance Program (OSAP) eligible
- Second Career eligible
- Scholarships and bursaries available

Career Opportunities

Program graduates will have a range of career options, depending upon their background:

- employment with sustainable building companies in Ontario, across Canada and internationally
- employment with conventional construction companies that provide "green building" options or focus
- work with renewable energy, heating, cooling and ventilation companies, indoor air quality specialists, professional designers, water and waste treatment or ecological renovations companies
- self-employment as a builder or designer of sustainable homes or as a specialist in a particular field
- work in product or service development related to sustainable building
- employment with government housing agencies, non-profit housing organizations, international development agencies, or in public awareness and education.

Minimum Admission Requirements

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.

Mature Students

If you are 19 years of age or older before classes start, and you do not possess an OSSD, you can write the Canadian Adult Achievement Test to assess your eligibility for admission.

If you are interested in starting this program in Spring 2014, apply through ontariocolleges.ca and use the application for the 2013-2014 application year.

Additional Costs

Plan on spending approximately \$700 for books and supplies.

Curriculum for Sustainable Building Design and Construction

Semester 1

Code	Course Name	Hours
CNST 47	Architecture and Design	45
CNST 48	Contracting and Project Management	45
CNST 72	Project Administration for Sustainable Building	135
CNST 73	Design for Sustainable Building: Structural	90
CNST 74	Construction for Sustainable Building: Structural	157.5
CNST 75	Construction for Sustainable Building: Mechanical	157.5
ENVR 33	The Natural, Sustainable and Green Building Movements	45
ENVR 34	Sustainable Building Design	45
MECH 114	Services and Mechanical Systems for Sustainable Building	45
MECH 156	Design for Sustainable Building: Mechanical	90

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