

Lambton College's Strategy to Educate HQP in Clean Technologies

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Lambton College

- Located in Sarnia
- One of the first colleges in Ontario (40 year anniversary)
- Award winning:
 - **2006 - Yves Landry Academic Award Recipient:**
 - **Outstanding Innovation in Education Award**
For designing highly successful programs to meet local and province wide HQP needs in collaboration with the IEC (Industrial Education Co-operative)
- Collaboration is essential to our success

Historical Background

- Sarnia is home to a cluster of several refineries, chemical plants, power plants and other related industries
- Historically, Lambton College addresses the HQP needs:
 - Chemical process operation and power engineering
 - Instrumentation and control
 - Mechanical maintenance
 - Industrial hygiene & environmental programs
 - Fire training
 - Soft skills
 - Safety skills
 - Skilled trades

Context for Change

- Kyoto Protocol (Dec. 1997)
- Rio Declaration (June 1992)
- Climate Change
- Global Warming
- Alternative energy technology developments – especially in Europe
- Concerns about the environment

Specific Strategies for Clean Technologies

- Alternative Energy Engineering Technology program
 - Educate HQP to address alternative energy technologies, design/installation/maintenance
 - Supporting Projects
 - Sustainable Smart Home
 - Hydrogen Deployment
 - Hydrogen Fuel Cell
 - Biofuels
 - Vortex Engine

Specific Strategies for Clean Technologies

- Chemical Production and Power Engineering Technology program
- Instrumentation and Control Engineering Technology program
- Supporting Research Facilities and Projects
 - Advanced Materials Engineering Research Laboratory
 - Advanced Process Control and Simulation Research Laboratory
 - Recyclable materials (rubber) – thermoplastics
 - Controls for optimized (clean) production and waste reduction

Pervasive Strategy for Clean Technologies

- Sustainable Development awareness
 - All facility and staff
 - All students
 - Community
 - Industry
- “Walking the Talk” in the college
- Stakeholder specific training in clean technology, energy conservation etc...

Sustainable Development Education

- Public seminar series on sustainable technologies to
 - Encourage knowledge transfer into the community
 - Facilitate interaction between community, industry and college
 - Motivate adoption of clean technologies
- Annual Community Energy Forum
- Saturday workshops for children (Grade 5 -12)

Sustainable Development (SD) Education

- General Education SD course integrated into all technology programs
- Continuing Education SD course
- SCWI (School College to Work Initiative)
 - Workshops
 - Dual Credits
 - Support teachers in curriculum development
 - E.g.. Alternative Energy and Sustainability
- Industry specific SD awareness training
- Industry specific technical training
 - E.g.. energy management

Some of Our Partners

- Suncor Energy
- University of Western Ontario (UWO)
- UWO Research Park - Sarnia
- BSI 
- MOE – CCI
- University of Toronto
- Ontario Innovation Trust
- Canadian Foundation for Innovation
- [Ontario Ministry of Research & Innovation](#)



More Partners

- SOBIN
- Lanxess
- Shell Canada
- SLEP
- IEC
- OCE
- IEEE London Section
- Others



Questions?

Thank You!

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