

Life Cycle Assessment 2015



LCA XV
Educational
Courses
October 5th

Organized By



ACLCA
American Center for
Life Cycle Assessment

LCA XV • Vancouver • October 6 - 8, 2015
Hosted by the University of British Columbia



About the Conference

Organized by the American Center for Life Cycle Assessment and hosted by the University of British Columbia, Life Cycle Assessment 15 (LCA XV) is the largest international conference in North America that focuses on life cycle assessment and sustainability throughout various industries. This conference will create a dynamic meeting place for researchers, practitioners, policy-makers and industry experts to define the future of sustainability in energy, transportation, agriculture, government and education to name a few. This event has taken place in 14 other cities and draws over 300 delegates from 20 countries, creating a network of driven individuals looking to make a difference in the sustainability sector. This year's event is set to take place in Vancouver, British Columbia, Canada from October 6 - 8, 2015.

Sign Up for Educational Courses

ACLCA is pleased to offer educational LCA sessions on October 5, 2015 at the University of British Columbia, the day before the LCA XV Conference. All of the classes count toward Continuing Education Units (CEUs). 1.5 hour courses are \$200 each (2 CEUs) and 3 hour courses are \$400 each (4 CEUs). Students who are full time or half time will receive 50% off courses. To register for the courses please go to our [webstore](#) and pay for the course/s. (Please note that classes will only run if more than eight participants are registered. The deadline for registration for the classes August 31st)

Time	Room 1	Room 2	Room 3	Room 4
10:30 - 12:00	<i>How Much are Life Cycle Activities Contributing to Your Organization's Top and Bottom Lines?</i>	<i>Assessing the other Two Pillars: Considering Social & Economic Impacts</i>	<i>Effective Communication of LCA Results to Various Audiences</i>	<i>Using the WRI Screening Tool & Publicly Available Data Together to Footprint</i>
12:00 - 1:00	Break			
1:00 - 3:00	<i>Life Cycle Impact Assessment (LCIA) Application: A Practitioner's Perspective</i>	<i>openLCA: An Open Source Tool for LCA Data Management & Modeling</i>	<i>Water Footprinting: Introduction, ISO Standard, Application & Recommended Methodology</i>	<i>LCACP Exam</i>
3:00 - 5:00				

How Much are Life Cycle Activities Contributing to Your Organization's Top & Bottom Lines?

In successful organizations LCA can no longer be viewed as an academic exercise without direct implications for one's strategic business priorities. Given this growing awareness it is increasingly critical to quantify and communicate the benefits of life cycle activities in terms of ROI, contributions to revenue, brand, cost and risk.

In this hands on workshop participants will learn how to identify the contributions of LCA to the organization's business priorities, capture success factors in realizing the value, and leading practice from peer companies in communicating the ROI of their efforts.

Objectives of this course:

- Change the view of LCA from a cost to a revenue center
- Achieve up to a 10 X ROI for every dollar invested in LCA initiatives
- Make the case for 20% more resources
- Speak the language of sustainability business value with senior leadership
- Engage peers and business unit leads on the importance of LCA & supporting data collection

Instructor Biography:

Chris Peterson is a Senior Consultant & Business Value Specialist at thinkstep. For 9 years Chris has brought his passion and expertise in strategy, facilitation and sustainability, to a wide variety of client engagements. Chris works primarily in the area of sustainability strategy assessment and development; as well as, driving his company's efforts on quantifying and realizing the business value of sustainability, through tool development, workshops and 1:1 engagements. Further, Chris has global responsibility for thinkstep's Product Sustainability Round Table, the leading community of practice in the product sustainability space for over 20 years.



Assessing the other Two Pillars: Considering Social & Economic Impacts

This course will acquaint the trainee with current methodologies to assess social and economic impacts including Social LCA, Life Cycle Costing, Ecosystem services valuation, Full Cost Accounting, Multicriteria Decision Analysis, Social Risk Assessment and Sustainability Return on Investment.

As a group, we will explore the various methodologies, their strengths and weaknesses and learn how each is best used. Particular attention will be paid to valuing tradeoffs. Additionally we will expose the gaps in analysis techniques and show how those gaps might be filled.

Objectives of this course:

- Understand the basics of each methodology
- Understand the strengths and weaknesses of the methodologies
- Assess where there are gaps in today's methodologies and how to bridge those gaps
- Take more advanced courses on the individual methodologies in order to apply them

Instructor Biography:

Lise Laurin founded EarthShift in 2000 to support businesses in their endeavor to be more sustainable. In addition to developing training, tools and consulting services, Lise has worked diligently to improve how we deal with tradeoffs and how social and economic impacts can be included in our path to sustainability. She is the driving force behind the LCA Capability Roadmap and a pioneer in S-ROI. She is the Vice President of the Sustainability Conoscente Network, a member of the SETAC North American LCA Advisory Group Steering Committee, and a member of the US ISO TAG on LCA.



Effective Communication of LCA Results to Various Audiences

Organizations perform LCA for various reasons and need to communicate their results to a wide variety of audiences. Reasons for completing a LCA include decision making, design, regulations, benchmarking, reporting, or marketing. Audiences include regulatory bodies, customers, technical experts, professional publications, internal employees, and many more. In this course, we will review the motivations for completing LCAs and the various audiences to which we will communicate these results. For each combination of motivation and audience, we will describe the importance of including different elements of LCA analysis and describe best practices for effectively conveying results.



Objectives of this course:

- Recognize the different motivations for communicating LCA results
- Identify the key challenges of communicating LCA to various audiences
- Communicate relevant LCA information in the best way possible for different audiences
- Understand how adhering to international guidelines & standards such as ISO 14044 can change your communication strategy.
- Participate in hands-on activity reviewing LCA case studies/ group mock presentation of LCA results

Instructor Biography:

Ashley DeVierno is a LCA Certified Professional with over four years of experience in communicating environmental analysis, including LCAs and Greenhouse Gas (GHG) inventories for corporate reporting. As a senior associate at ENVIRON, she has developed internal and external communications for clients, including a journal submission to the American Chemistry Society. Prior to joining ENVIRON, she was a sustainability engineer in LCA at Xerox Corporation, where she developed peer-reviewed LCA marketing collaterals and sustainability messaging. She has also presented on LCA at several academic and industry conferences.

Using the WRI Screening Tool & Publicly Available Data Together to Footprint a Company, Facility or Product

A screening carbon footprint can be performed using a combination of the WRI Screening Tool and carefully selected publicly available data. Instead of footprinting of specific products, focusing on the supply chain aspects of a business segment can minimize the effort to identify the aspects of the business that drive carbon impacts so they can be addressed. To facilitate this process, it is important to recognize when additional data is needed and where to get it. While LCA software programs can connect to databases for impacts, these may have limitations on use that publicly available data will not have.



Objectives of this course:

- Learn what the WRI Screening Tool can do out of the box & how to use it
- Learn where to locate publicly available data & how to make its use transparent
- Learn how to combine these data elements in a product, business unit or facility footprint

Instructor Biography:

John Beath, P.E., LCA-CP, is an independent consultant with more than 30 years of technical experience working with industry data, including carbon footprint results for a wide variety of screening footprints, as well as LCA results for oil and gas, manufacturing, alternative energy and recycling. He has led technical workshops on five continents and has served as a guest lecturer on sustainability at Lamar University. John focuses on developing *Microsoft Excel* solutions for clients that can be used in a wide variety of situations.

Life Cycle Impact Assessment (LCIA) Application: A Practitioner's Perspective

In this class midpoint LCIA impact categories, the methods and models available to LCA practitioners will be introduced and explored. Portfolios of LCIA methodologies have emerged for many regions of the world, such as the US Environmental Protection Agency's Tool for the Reduction and Assessment of Chemical and other Impacts (TRACI) methodology and the EC Product Environmental Footprint guidelines. This class will familiarize the reader with the state-of-the-practice of LCIA, the underlying models available, and their appropriate use. Materials will be based upon Chapter 11 of the ACLCA Textbook "Environmental Life Cycle Assessment."



Objectives of this course:

- Attendees will become familiar with the variety of LCIA methods available to them
- Attendees will be able to understand the basic science behind the LCIA methods used today
- Attendees will be guided on which methods to use and when

Instructor Biography:

Thomas P. Gloria, Ph.D. is Managing Director of Industrial Ecology Consultants. He has more than 20 years of professional experience in the sustainability field as a trusted advisor to fortune 500 companies. Dr. Gloria is a Board member of ACLCA, member of the USGBC Technical Advisory Panel for EPDs, Vice-chair of the International Society of Industrial Ecology's LCA Committee, and serves on the GM Company Sustainability Stakeholder Committee. He regularly lectures for the Harvard University Extension School, Tufts University, the Presidio Graduate School, and the International Society of Sustainability Professionals. He holds a Ph.D and M.S. in Civil and Environmental Engineering from Tufts University and a B.Sc. in Electrical and Computer Science from the University of Connecticut.

openLCA: An Open Source Tool for LCA Data Management and Modeling

With increased data availability and projects spanning multiple organizations, the need to share LCA models and foster collaboration has never been greater. OpenLCA enables collaboration by reducing financial barriers associated with LCA software. This course will introduce openLCA and provide hands on instruction for individuals interested in implementing LCA in their organizations or teaching a university course. The goal of the course is to provide the basic skills and knowledge necessary to perform environmental assessments using openLCA & demonstrate its benefits.



Objectives of this course:

- Identify and list the hierarchical components used in openLCA
- Link processes and create process life cycle inventories
- Perform impact assessments using multiple assessment methods
- Compare the environmental impacts of two product systems
- Export and share openLCA files and data

Instructor Biography:

Dr. Jesse Daystar is the Associate Director of Corporate Sustainability at the Duke Center for Sustainability and Commerce where he develops research and education programs at the nexus of sustainability and commerce. Dr. Daystar has led research and consulting in aspects of product sustainability, biomaterials, biochemicals and bioenergy focused on identifying environmental trade-offs, technical risks and impacts. Dr. Daystar holds B.S. degrees in Chemical Engineering, Paper & Pulp Engineering and both a M.S. and a Ph.D. in Forest Biomaterials from North Carolina State University.

Water Footprinting: Introduction, ISO Standard, Application & Recommended Methodology

This course will cover all the basic knowledge, scientific and practical, related to water footprinting, as defined in the ISO standard 14046. An overview of the content and requirements of the standard will be presented as well as a brief description of existing methods at the inventory and impact assessment levels. A case study will be presented in details, exploring all technical aspects associated with calculating your own water footprint and reducing its uncertainty with the least efforts. At the same time, this class also provides the state-of-the-art knowledge for water use assessment in LCA. The new WULCA preliminary recommended method, AWaRe, will also be presented.

Objectives of this course:

- Understand the ISO standard on water footprint and how to apply it
- Understand what is a water footprint and the different terminology
- Discover the different methodologies and tools to perform a water footprint
- Discover and understand the new WULCA recommended methodology for water scarcity footprint
- Analyse several examples and case studies

Instructors Biographies:

Anne-Marie Boulay completed a Ph.D. at CIRAIG on the assessment of water use impacts in LCA, in collaboration with Quantis Lausanne and ETH Zurich. She received the SETAC LCA Young Scientist award in 2014. Anne-Marie is the Canadian representative for the ISO Water Footprinting working group, co-author of the UNEP Water Footprint training material and the chair of the WULCA working group on water use in LCA, from the UNEP/SETAC Life Cycle Initiative.

Dr. Sebastien Humbert is VP Scientific Affairs & Co-founder of Quantis. At Quantis, he is implementing state-of-the-art LCA and Water Footprinting databases and methodologies. Dr. Humbert is very active in LCA and Water Footprint, and he is the convener of the ISO working group on water footprint. Dr. Humbert gives regular classes to upper level education or for internal company trainings on LCA.



LCACP Exam

The LCACP exam is a three and half hour multiple choice exam in English. There are 184 questions. You can view the exam FAQ page on our website: www.lcacenter.org/1certification.aspx

The exam is based on the criteria list which describes all the information an LCA Professional is expected to know. To sign up for the exam, you will need to pay two fees. One for the application (for which prerequisites will be verified) and one to sit the exam. You can pay the fees at our [webstore](#).