

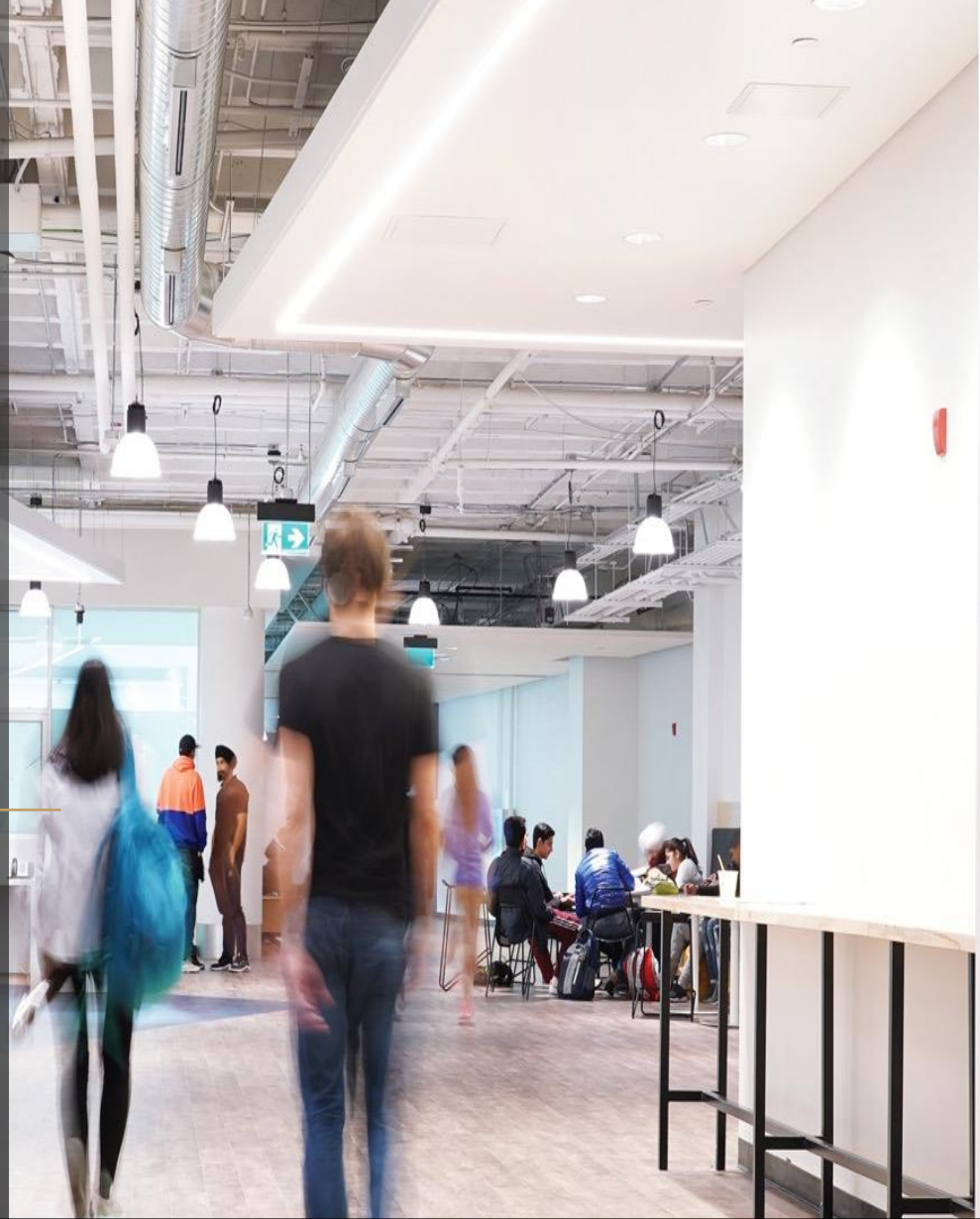


CONESTOGA  
Connect Life and Learning

# Building Sustainability Curriculum: Piedmont/Ponderosa Model and Stories from the Front Line

Dr. Geoff Chase

Professor Michael Quartermain



# CONESTOGA'S E3 CONFERENCE

Virtual Employees for Excellence in Education Conference

MAY 27 - MAY 30, 2024

## Before we start, please:

1. Ensure that your mic remains muted unless you intend to interact with the audience
2. Click the "Chat" button on the task bar and say hello in the chat window
3. Check the features list (right)
4. This workshop will be recorded

## Features for this workshop

- Group chat
- Raise hand (in the task bar 'Reactions')
- Breakout groups
- Camera/mic welcome but optional!

All E3 recordings and resources will be available at:

<http://bit.ly/VirtualE3>

# BUILDING SUSTAINABILITY CURRICULUM

# SESSION OVERVIEW

## AGENDA

1. Introductions
2. An Invitation
3. Sustainability Mindset
4. 7 Principles of the Piedmont Ponderosa Model of Faculty Development for Sustainability Curriculum – featuring stories from the front line with Dr. Geoff Chase
5. Reflections and questions.

## LEARNING OUTCOMES

- Introduce the 7 principles of the Piedmont/Ponderosa Model of Faculty Development
- Create a paradigm shift toward action in sustainability curriculum development
- Reflect on actions that faculty can take to incorporate sustainability into course design



**INTRODUCTIONS**

# **WHILE WE ARE MEETING YOUR FACILITATORS!**



**While we're waiting, please introduce yourself in the chat:**

- **Name**
- **Department**
- **Role**





# INTRODUCTIONS

## YOUR FACILITATORS

### **Dr. Geoffrey Chase**

Geoff has served as Provost at CSU Channel Islands, Dean of Undergraduate Studies and the Center for Regional Sustainability Director at San Diego State University and Vice President of the WASC Senior College and University Commission (WSCUC). At San Diego State, he played key roles in establishing the Weber University Honors College, the Center for Regional Sustainability, and programs supporting undergraduate research, assessment of student learning, academic scholarships, community-based service learning, and faculty development aimed at increasing student completion, success, and achievement. He lectures widely on improving graduation rates and sustainability in higher education and offers workshops on institutional change, leadership, sustainability.



# INTRODUCTIONS

## YOUR FACILITATORS

### **Professor Michael Quartermain**

Michael Quartermain is a professor at the School of Business at Conestoga College Institute of Technology and Applied Learning. Michael is passionate about continuous learning and sharing his practical experiences in applying theory in business and the intersection of sustainability in his teaching.

Michael's diverse work experience in leadership positions showcases his over 40 years of expertise and accomplishments in strategic sourcing, procurement, and supply chain management across various industries and organizations. He is recognized by Marquis Who's Who Top Educators for dedication, achievements, and leadership in business education.

Michael obtained a Bachelor of Commerce (BCom) and a Certificate in Dispute Resolution focusing on mediation and conflict resolution from York University. Michael earned a Master of Laws (LLM) degree from Osgoode Hall Law School, specializing in Alternative Dispute Resolution and a Master of Peace and Conflict studies from the University of Waterloo,

Michael also holds various certifications: Certified Associate Project Manager (CAPM), Certified Supply Chain Management Professional (CSCMP), Chartered Manager (CMgr), Qualified Mediator (QMed) and Lean Six Sigma Green Belt. As part of his continuous learning journey, he has also obtained various certifications, including a Carbon Literate Certificate, a Canadian Law Certificate, a Post Secondary Teaching Certificate, and others.



# POLL

How challenging has it been for you to think about integrating sustainability into your curriculum?

Select the best option.



# AN INVITATION

We invite you to enhance your teaching and engagement with environmental and interconnected economic and social justice issues.

Skeptics, environmentalists, and those in between can find their own perspectives welcomed and enriched by the dialogue and creative thinking.





# SUSTAINABILITY IS A MINDSET

Sustainability is not a problem, a condition, or a program; it's a way of life, a relationship in which humanity and the rest of nature become, in the words of Thomas Berry, "mutually enhancing presences to each other."

In this respect, sustainability resembles love, health or peace. Pursued with deliberate imagination, it becomes a practice for both individuals and communities.

- John Tallmadge



# A QUESTION FOR YOU!

What are you grateful for today?

You can use the annotate TEXT feature in ZOOM, write in the chat box or unmute yourself.

# ORIGINS OF THE PIEDMONT PONDEROSA MODEL

- The Piedmont Project was modeled after the Ponderosa Project at Northern Arizona University, and NAU leaders Geoff Chase and Paul Rowland came to Emory to facilitate the opening workshop.
- In 2001, Peggy Bartlett from Anthropology and Arri Eisen from Biology and the Science and Society Program at Emory University launched a summer faculty development program to infuse sustainability and environmental issues across the curriculum.
- Subsequently led by rotating teams of Emory faculty facilitators, it later expanded to include a program for graduate students. The Piedmont Project has become a national model for faculty development and curricular innovation around sustainability.

(Barlett & Chase, 2012).

1

# SEVEN PRINCIPLES OF THE PIEDMONT PONDEROSA MODEL

1. **FOSTER CREATIVITY** – stimulate a desire for change within the broadest possible group of faculty – build excitement for sustainability education – cross the traditional schools, streams and faculty silos by mixing rich and diverse knowledge – no one area of the curriculum owns sustainability.

## EXAMPLE:

An instructor may add sustainability business cases and calculations on non-financial measures related to ESG as part of a creative approach to include sustainability in a finance course.

(Barlett & Chase, 2012).



# 2

## SEVEN PRINCIPLES OF THE PIEDMONT PONDEROSA MODEL

### 2. EMPHASIS FACULTY EXPERTISE

– recognition that faculty are experts with many years of experience, training and teaching expertise in their fields – this experience allows them to discover and create what is best for their curriculum.

#### EXAMPLE:

A faculty member may invite another faculty from a different discipline or school as an expert to teach a lesson on sustainability-related links to the curriculum.

(Barlett & Chase, 2012).

3

## SEVEN PRINCIPLES OF THE PIEDMONT PONDEROSA MODEL

- 3. BUILD A FACULTY COMMUNITY**— peer-to-peer learning opportunities help build connections and lasting relationships across disciplines, providing unique learning opportunities. – learning is a lifelong journey!

### EXAMPLE:

Conestoga College has started a “Community of Practice” (CoP) group that faculty can join. The CoP for sustainability is a learning partnership among people who want to make a difference!

**Watch for the SharePoint site to be launched soon!**

(Barlett & Chase, 2012).



CONESTOGA  
SCHOOL OF BUSINESS



Community  
of Practice

# CONESTOGA COLLEGE CURRENT STATE BASED ON SUSTAINABILITY PLANNING SURVEYS

There is a significant amount of interest, activity, and institutional support for sustainability at Conestoga

**90%** of survey respondents agreed or strongly agreed that sustainability should be a strategic priority for Conestoga College

**73%** of survey respondents would like to be involved in sustainability-related initiatives at the college, yet only **33%** believe they've had an opportunity to do so

- **Based on survey results**, respondents identified the following five top priorities\* for sustainability at Conestoga:



**Curriculum**  
(51%)



**Buildings**  
(41%)



**Energy**  
(41%)



**Waste**  
(40%)



**Wellbeing & work**  
(38%)

*\*The percentage reflects the survey respondents that chose each as their top 5*

(Conestoga College, 2024).



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# 4

## SEVEN PRINCIPLES OF THE PIEDMONT PONDEROSA MODEL

### 4. ENCOURAGE AN INTERDISCIPLINARY APPROACH

– because any single area of study cannot address sustainability, there is room for multiple perspectives and collaboration – this enhances the skills that our students will need to enter the workforce

#### EXAMPLE:

An economics course may question the use of natural resources and the free market in terms of the consequences of the management of resources in the context of legal frameworks and environmental issues.

(Barlett & Chase, 2012).



# 5

## SEVEN PRINCIPLES OF THE PIEDMONT PONDEROSA MODEL

- 5. WELCOME DIVERSE PEDOLOGICAL PRACTICES** – this can be a significant content change in approaches, the addition of experiential learning (a field trip) or new texts to add a sustainability perspective to simply incorporating additional assignments and article readings – perhaps a paradigm shift is the outcome.

### EXAMPLE:

In revising the comprehensive nursing curriculum at Emory University, an integrated “eco-centric” paradigm takes into account the entire environment of health in place of a curative-medicine patient-focused ego-centric paradigm.

(Barlett & Chase, 2012).

# 5

## SEVEN PRINCIPLES OF THE PIEDMONT PONDEROSA MODEL

- Cross Disciplinary **OR** Disciplinary Problem-Based Themes
  - Climate change
  - Natural hazards and society
  - Building sustainable communities
  - Sustainable development
  - Energy sources and systems
  - Poverty and hunger
  - Food and food systems
  - Social justice and extractive industries (e.g. coal mining, fracking)
- Pedagogical Themes:
  - Experiential learning
  - Project/Problem based learning
  - Living laboratory
  - Service learning and community-based research

(Lyons, 2019).

# 6

## SEVEN PRINCIPLES OF THE PIEDMONT PONDEROSA MODEL

- 6. MAKE CONNECTIONS** – faculty can make connections with each other – across disciplines – consider team teaching and inviting other faculty as guest lecturers – connections can also be made through local and international research and outreach.

### EXAMPLE:

At Conestoga College, two professors from Conestoga's School of Business traveled to Troyes, France, to share knowledge and network with students and faculty in an academic and cultural experience at [South Champagne Business School \(SCBS\)](#) - a member institution of Y Schools Troyes.

[Read More Here!](#)

(Barlett & Chase, 2012).



You can type your thoughts in the chat box or raise your hand and unmute yourself

**What should a student be able to do with regard to sustainability as a result of his or her academic work at this institution?**





# 7

## SEVEN PRINCIPLES OF THE PIEDMONT PONDEROSA MODEL

### 7. FOCUS ON LEARNING

**OUTCOMES** – place an emphasis on what students should and can do and step outside the individual curriculum to encompass a broader purpose of higher education in sustainability – students should have the skills and abilities to take leadership roles that will have a positive impact for a more sustainable future.

### EXAMPLES

Reflect and share (next slide)

(Barlett & Chase, 2012).



# PRESENTATION REFLECTION

Please take a moment to reflect on any of the challenges you face in your role or on the messages from our workshop today.

How might they affect your actions and leadership as faculty?

***You can use the annotate TEXT feature in ZOOM, write in the chat box or unmute yourself.***

# SUSTAINABLE PROCUREMENT REFERENCES

- Barlett, P. F., & Chase, G. W. (2012). Curricular Innovation for Sustainability: The Piedmont/Ponderosa Model of Faculty Development. *Liberal Education*, 98(4), 14-21.
- Retrieved from  
[https://librarysearch.conestogac.on.ca/permalink/01OCLS\\_CONEST/4ir229/cdi\\_proquest\\_reports\\_1504957117](https://librarysearch.conestogac.on.ca/permalink/01OCLS_CONEST/4ir229/cdi_proquest_reports_1504957117)
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<https://hub.aashe.org/browse/presentation/22580/Sustainability-Across-the-Curriculum-History-Status-Best-Practices-From-a-National-Inventory>
- Emory University, (nd). About the Piedmont Project. Retrieved from  
<https://piedmont.emory.edu/about/index.html>



# NINE IDEAS TO CHANGE YOUR COURSE

1. Hidden curriculum
2. New readings
3. New assignment
4. New unit or module
5. New student project
6. Guest speaker; team teaching
7. New course
8. Paradigm shift; course strategy & goals
9. Engaged learning; community experience

OR WHAT WORKS BEST FOR YOU!