SESSION

Expanding the On-Line Learning Experience

This session looks at a number of on-line approaches which include how partner colleges can develop energy efficiency programs, how to foster a thriving on-line learning community, and how on-line instruction can be combined with practical hands-on experience.

For program information go to: www.nweei.org
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For program information go to: www.nweei.org
Energy Efficiency Education Goes Online

– But, You’ve Got to Play Nice!
MISSION STATEMENT:

“To be the Preferred Source of Cost-effective, Innovative, High-quality Energy Education Designed to Quickly Respond to Industry and Societal Trends”

-1997 NEEI Business Plan

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SNAPSHOT OF NEEI’S ORIGINS & HISTORY

1980
Began providing energy specific classes leading to an Associate of Applied Science Degree

1988-1992
No Support = No Funding = No Jobs
Program takes an “Administrative” Leave (the Reagan years)

1992
Program re-opens with focus on Energy Efficiency in COMMERCIAL buildings

1997
Budget shortfalls due to property tax limitation. EM program eliminated from the College General Fund.

1998
Roger Ebbage successfully creates the Northwest Energy Education Institute to generate the shortfall in revenue.

1998-Today
Programs and Enrollment Grow Exponentially
NSF Grant
Leading Alternatives in National Energy Solutions: Training the Next Generation of Energy Efficiency Professionals

- 3-yr ATE Grant awarded in August 2009
- Lane Community College cannot possibly meet the national demand for energy efficiency training alone.
NSF Grant
Leading Alternatives in National Energy Solutions: Training the Next Generation of Energy Efficiency Professionals

Grant Revisions – THE SHORT, SHORT VERSION.

- Originally included IPvideo telecourses as the main delivery mechanism to community colleges that wanted to offer an energy management program.
- Completely overhauled to assist each partner college in creating their own program by providing anything from course outlines and resources to full credit hybrid classes.
Step 1: Revised Grant Deliverables

Assist Partner Colleges With Energy Management Program Development by:

- Individual College / Program Advisement
- Course Outlines
- State Course Approval Forms
- A Selection of Online Courses Delivered by Lane Energy Program Faculty
- Full Energy Management Program Delivered by Lane Energy Program Faculty
- Professional Development of Energy Educators (SEES)
Step 2: Locate Partners

Like any good friendship, sometimes you just need someone who will give you a good push.
The NSF Grant – First Round of Partners
But...they had to play nice!

Locate remote cohorts, build quality online classes and launch within 1 year!!

.... We've never done this before!
Spotlight Partnership

• 3 – separate Campus’s with a cohort/facilitator on each
  • Stanton-Wilmington
  • Dover (Terry Campus)
  • Georgetown (Owens Campus)

• Program began with 32 students and are now finishing year 1 of a 2yr AAS degree

• Delaware will begin teaching their own classes using materials and experience gained directly provided by the partnership
How does it work? – from a students viewpoint
How does it work? – students viewpoint

- Students log into LaneCC’s Learning Management System for core Energy class lesson content.
- Students are required to show up on their local campus participate in labs, connect with their cohorts and participate in group work.
How does it work? – from a students viewpoint

- **Instruction**
  - Web based technology (webpages, audio, video)
  - Hard copy reading (books, blueprints, reports)
  - Online Activities (quizzes, assessments, research)
  - Webinar participation (either LCC or could be a guest!)
  - Weekly High Speed - Video Conference Call / Virtual Office Hour

- **Labs**
  - Virtual projects (photo assignments, discussion notes)
  - Physical projects (building tours, out of class activities)

- **Help**
  - Physical contact and support from local facilitator
  - Local campus support via math and technology tutors
  - Online / offline advisement from LCC on subject related problems
Video features some examples of different techniques used when creating our hybrid classes.
Our online classes form an important but temporary bridge.
A bridge - that can easily be moved and repurposed into the future.
Summer T2T Workshop

• Provide new partners with valuable knowledge and expertise.
• Ideally; attendees will lead local classes / cohort
• Five day training limited to ~8 attendees (Free! Just purchase transportation to Oregon)

Schedule & Participant info at:
http://www.nweei.org/energy-educators-summer-workshop.html
Summer T2T Workshop

• ~1hr Interaction with each Energy Educator / class (Teacher to Teacher)
  • What to teach (curriculum)
  • What's important and why
• Hands-on Tools of the Trade
  • Energy Use Index
  • Bin data using Excel
  • Calculating EUI's and using Building Performance data
  • Dataloggers, lightmeters, psychrometric chart, eQuest, Thermal Imaging, blower door ...
  • Distance Learning tools (virtual meeting software)
• Energy Auditor Toolkit & Resource Sharing
Online doesn’t have to be boring but ‘online’ can’t be the solution.

It’s a tool.
Getting information off the Internet is like taking a sip from a fire hydrant.

Mitchell Kapor
Lesson’s Learned:

Pro’s
If everyone is playing nice, it's easy to give and receive criticism which dramatically improves the end product.
Changes are natural and flow easily.

Con’s
Creating individual arrangements for each partner takes time (lots!) and can involve college-wide communications.
Just because you are in communication doesn’t mean you are communicating.
FUTURE DEVELOPMENTS – SNEEK PEAK!

Downtown Campus – An Energy Building that Teaches
Thank you!
Questions? Comments?

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