Teaching in the Distance-Enabled Environment
Spring 2013 Workshop for Faculty

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DISTANCE LEARNING ORGANIZATION AND PHILOSOPHY AT SSOE
ORGANIZATION: We are part of the Engineering Education Research Center (EERC) at SSoE
Philosophy

• We use the term “distance-enabled” to describe our approach.
• We recommend synchronous learning over asynchronous learning.
• DL is only available to graduate students.
• We encourage real-time interaction, instructor → student, peer → peer.
• We are not part of Pitt Online (which is part of CIDDE).
Jan’s Job Description, Part 1: BIG PICTURE

• Build and maintain a Distance Learning Program for SSoE that:
  – Is based on state-of-the-art technology, pedagogy and course delivery strategies.
  – Meets the workforce development needs of new and existing corporate partners, as well as individual students seeking employment.
  – Increases enrollments (i.e., revenue) for the Swanson School of Engineering by reaching beyond the Pittsburgh area.
  – Provides a supportive infrastructure for faculty and students as they endeavor to teach via the Internet.
  – Allow Pitt to maintain a competitive advantage in professional graduate engineering education.
Jan’s Job Description, Part 2:
DAY-TO-DAY ACTIVITIES

- Help faculty with Courseweb.
- Conduct workshops like this one.
- Classroom scheduling and enrollment management (how did that happen????).
- Work with students and optimize the flow through the admission process.
- Work with Directors/Coordinators on program proposals and recruitment/marketing plans for academic programs.
- Engage in recruitment/marketing activities on behalf of professional engineering graduate programs.
- Make purchasing recommendations for relevant hardware and software.
- Develop policies and procedures for distance education.
- Track new developments in Distance Learning (i.e., MOOCs).
- Development and maintain DL & EERC websites
Current Distance-Enabled Professional Graduate Programs at SSoE

- Mechanical Engineering and Material Science (MEMS)
  - Graduate Certificate
  - MS in Nuclear Engineering
- Civil and Environmental Engineering (CEE)
  - Graduate Certificate in Transportation Engineering
  - Graduate Certificate in Construction Engineering
  - Graduate Certificate in Mining Engineering
- Electrical and Computer Engineering (ECE)
  - Graduate Certificate in Electric Power (pending final approval)
- Safety Engineering (courses only)
- Bioengineering, under development (?)
BuzzConcepts in Distance Learning

- MOOCs
- Telepresence
- Gamifications
- BYOD
- Cloud everything
- Learning analysis
- Predictive analysis
Technology

• We are currently using Adobe Connect

• We are also looking at:
  – Cisco Telepresence
  – Polycom
  – Panopto
  – Vidyo
TOP TEN THINGS I HAVE LEARNED ABOUT TEACHING IN THE DISTANCE-ENABLED ENVIRONMENT

by Larry Foulke
Lesson #10: Offering distance courses has really increased nuclear engineering enrollments.
Lesson #9:
It drives remote students crazy when professors wander around while on camera.
Lesson #8: EVERYTHING must be electronically accessible to students.
Lesson #7:
You need to plan ahead if you plan to give a proctored exam.
Lesson #6:
The “flipped classroom” model works well.
Lesson #5:
The mortality rate of “Death by PowerPoint” is very high.
Lesson #4:
Jan is a good driver.
Lesson #3: Professors need strategies to reach out to remote students and invite their participation. However…….
Lesson #2:
..... it’s very difficult to get remote students to participate (even with state-of-the-art videoconferencing systems).
Lesson #1:
You really can teach 8,600 students in one class and live to tell about it.

(more about this later)
HOW CAN WE MEET THE NEEDS OF DISTANCE LEARNING STUDENTS?

And how can we get them to participate and speak up?????
Have introductions; make them feel like an integral part of the class
Learn their names
Remember their names
Call them by name
Ask questions of distance students while looking at the camera
Avoid the problems of this guy

........anybody, anybody........?
“I know you can’t really see this, but…….”

- What I will cover:
  - Preparing for the distance-enabled class
  - Helping distance students feel included
  - Use of PowerPoint
  - Use of Blackboard
  - Exams

- Preparation
  - Get to know your course producer
  - Create a communication scheme
  - Do a “dress rehearsal”

- What to wear
  - Clothing can be very distracting
  - Light colors blind the audience
  - Stripes and plaids sometimes appear to vibrate
  - Dark colors make the presenter look washed out
  - Mid-range colors without patterns are your best bet

- Inclusiveness
  - Do introductions
  - Ask distance students for their participation
  - Learn remote students’ names
  - Ask directed questions, look at the camera
  - Ask questions of everybody
  - Look for balanced participation
Look for balanced participation

Consider grouping or partnering classroom students with distance students
Exam Proctoring
CIDDE Academic Testing Services

CIDDE Academic Testing Services administers examinations to University of Pittsburgh students in a private, supervised testing facility. The Center oversees computer-based and paper-based examinations for distance education courses and make-up exams for on-campus courses. The Center is also available to assist with accommodations for Pitt students who require testing off-campus. CIDDE Testing Services also accommodates students from other institutions who need to complete an assessment in an academic, supervised testing center.

Please Note: On Wednesday, 11/21/12, the Testing Center will be closing at 5:00PM

Please select a particular category or FAQ for more information.

University of Pittsburgh Faculty & Staff
University of Pittsburgh Students
Pitt Students Taking Exams Off-Campus

CIDDE Academic Testing Services will assist students from the University of Pittsburgh with accommodations for off-campus testing.

Arranging for off-campus testing:

- **Testing requests for off-campus exams must first be approved by the instructor.**
- Once approved, follow these steps to secure a proctoring facility. Review the spreadsheet below that contains a list of pre-approved Testing Centers. The map below gives a geographic layout of the pre-approved locations. Click here to access the Pre-Approved Testing Center locations.
10 Principles of Effective Teaching via Distance

Principle #1:
Remember that ONLY YOU can teach the class.
Principle #2:
Allow a LOT of time for planning the course.
Principle #3: Attend to the pace and sequence of your class.
Principle #4:
Plan for the unplanned.
Principle #5:
Respond to students quickly and in detail.
Principle #5:
Think before you Write

I used to hate writing assignments, but now I enjoy them.

I realized that the purpose of writing is to inflate weak ideas, obscure poor reasoning, and inhibit clarity.

With a little practice, writing can be an intimidating and impenetrable fog. Want to see my book report?

"The dynamics of interbeing and monological imperatives in Dick and Jane: a study in psychic transrelational gender modes."

"Academia, here I come!"
Principle #7: Return assignments promptly.
Principle #8:
Establish and maintain communication protocols (i.e., RULES).
Principle #9:
Build quality into your class by attending to:

• **Content** (what’s in there)
• **Design** (how it looks)
• **Performance** (how it flows)
Principle #10: Make sure you know how to optimize the tools.
2012: The Year of the MOOC
MOOC BuzzWords

Disruption
Chaos
Revolutionary
Game-Changer
The New Normal
MOOCs are......

• “Massively Open Online Courses”
• Started and embraced by elite universities
• One class has had as many as 160,000 student enrollments
• Major players are COURSERA (Ng and Kohler from Stanford), EDX (Harvard and MIT), and UDACITY (Thrun from Stanford)
• Courses are free and open to anyone
• Student work is peer-reviewed and machine graded (no instructor interaction)
• University of Pittsburgh has been asked by Coursera to participate: Five courses are under currently under development
MOOCs are important because……

• They are legitimizing online education as an effective mode of course/program delivery.
• They are expanding opportunities for students to meet pre-requisites and to obtain credits for prior learning.
• They are driving the exploration of the monetization of online education, and—in so doing--creating new ways of looking at cost/benefit of higher education.
• They are fueling the conversation about competency versus credentials. (Are we moving toward a post-degree world???)
A Look at Nuclear Science and Technology

Larry Foulke, Ph.D., PE

This course will focus on the theory, design and operation of commercial nuclear power reactors. The course will also touch on contemporary issues regarding nuclear power generation including: the nuclear fuel cycle, the economics of nuclear power, and nuclear non-proliferation.

Next Session:
Jun 10th 2013 (8 weeks long) You are enrolled!

Workload: 4-6 hours/week

About the Course

The course, "A Look at Nuclear Science and Technology" is aimed at scientifically inclined individuals who want to learn more about nuclear energy and the nuclear power industry. It will address subjects such as: What is nuclear energy? What is its history? Who are its heroes? Why is it controversial? How do nuclear power plants work? What about nuclear weapons? What are the stereotypes and misconceptions? We expect many students who finish this class to want to go on for further study in a closely related field.

About the Instructor(s)

Larry Foulke is a retiree from the nuclear industry who retired at retirement and who loves to teach. After retirement, he created a series of courses in nuclear engineering at the University of Pittsburgh for both undergraduate and graduate students. Larry is currently an adjunct full professor who has an earned doctorate in nuclear engineering, P.E. registration (nuclear) in the State of Pennsylvania, and extensive experience in nuclear science and technology from a 40-year career in the nuclear industry.

Dr. Foulke also is well known and highly regarded within the nuclear industry having served as President of the American Nuclear Society in 2003-2004.

Course Syllabus
Use of Technology

- Currently, we use Adobe Connect 9
- We are looking at:
  - Cisto TelePresence
  - Panopto
  - Polycom
  - Vidyo
  - Mediasite
  - Echo360
Segue to Kenny….

….or Segway to Kenny……………….