...the 10 minute version...

Towards a Mobile Learning Pedagogy in Radiation Protection

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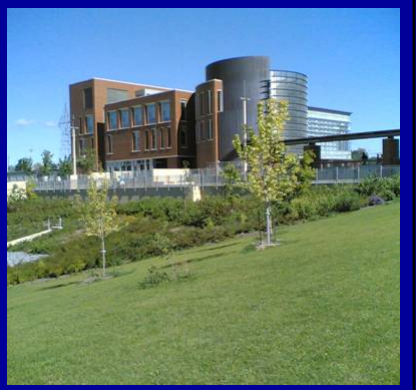
About UOIT

- University of Ontario Institute of Technology
- Canada's newest University
- Open to Students September 2003
- *First year:* ~100 students in nuclear engineering & radiation science
- *Currently:* ~180 students in nuclear engineering & radiation science



Nuclear community has made it known that there is a growing knowledge gap, and requires new personnel to fill the gap.

Unique Aspects of UOIT

- Market-oriented programs

- Mobile learning environment
- Immediate opportunities to practice in nuclear and radiation science industries

Mobile Learning

- Students lease laptop (mandatory)
  - Buyout option at end of program
- Laptop model is updated every 2 years
  - Model is dictated by needs of program
  - Every laptop is wireless configured
- All course related software is included prior to laptop pickup
  - Depends upon program of study
- Every large classroom has wired LAN drops and power outlets
- All campus has wireless access

Learning Management System

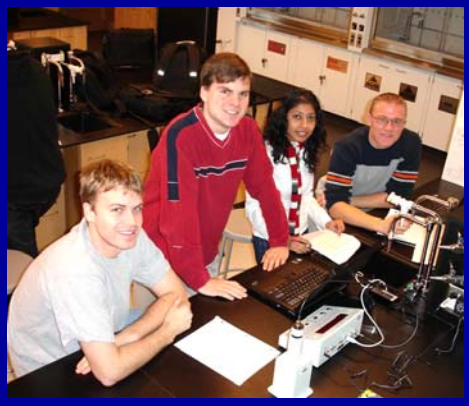
- Used for information archiving
  - Class notes, presentation slides, laboratory materials, assignments, syllabus
  - Videos and animations
- Discussion groups & chat
- Quizzes and surveys
- Virtual Drop-boxes
- Course e-mail

Student Interaction

- Interaction can take place in the “real” world and the “virtual” world
- *When students review material with audio and visual tracks there is a greater retention of material compared to visual alone.*
- Numerous tools available

Laboratories

- Laboratory exercises are designed to give students maximum benefit from having a laptop available.
- Interface with the equipment
- On-line documentation
- Data reduction and analysis
- File sharing



Assessment

- On-line submission (& return) of laboratory reports
- Assignments
- Research papers
- Midterms & quizzes
- Quizzing
  - WebCT
  - Respondus

Pitfalls

- Potential for information overload
- Increased availability = decreased struggling
- Instructor time commitment to the course roughly doubles
- More electronic submission facilitates cheating
- Laptops in the classroom can be a huge distraction (*for students and professors*)

Advantages

- Ability to do more with less time and space
- Students learn on the tools that they will be using in their employment
- An entire course can usually fit on a single CD for archiving
- Ability to follow student performance in “real time”
- Well suited for distance learning applications (*as well as industry training*)

Summary

- The future of radiation protection instruction is computer based
- There are a number of tools currently available to assist in developing on-line content

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