




## An International Joint Certificate in IT Administration: Opportunities and Challenges


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## Overview

- Collaboration between
  - University of Nebraska at Omaha (USA) 
  - University of Agder (Norway)  UNIVERSITETET I AGDER
- IT Administration Certificate
  - Completely on-line
  - approximately 14 credit hours
- Target population: undergraduate students

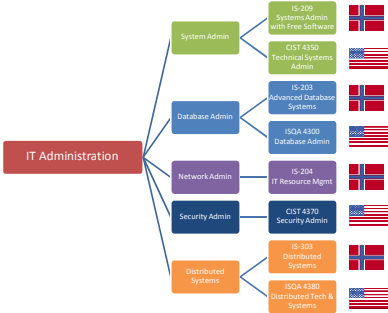


## Motivation

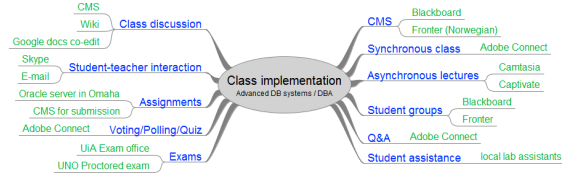
- Build on successful existing partnership
- Fill resource gaps via synergy
- Pedagogical and technological innovation
- Provide international experience to students
- Demand for IT Administration certificate
  - Bureau of Labor Statistics : 30% growth 2008-2018
  - Student survey: 80% interested



## IT Administration Content Areas

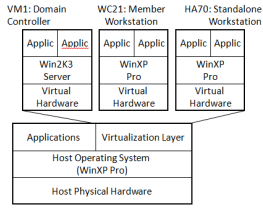


## Class Implementation



## On-line Virtual Lab – Systems Administration Course

- Multiple virtual machines per student
- Virtual private network for remote access
- TightVNC used for remote control of virtual machines
- Instructor can log in an observe student screens



VM1: Domain Controller	WC21: Member Workstation	HA70: Standalone Workstation
Applic Win2K3 Server Virtual Hardware	Applic WinXP Pro Virtual Hardware	Applic WinXP Pro Virtual Hardware


Applications | Virtualization Layer

Host Operating System (WinXP Pro)

Host Physical Hardware


### Amazon Cloud - Distributed Technology Course

- Purpose
  - Experience with cloud computing
  - Use of multiple pre-configured machines to experience distributed computing practices
- Amazon Web Services
- Preconfigured LAMP system for each student
- \$100 credit per student per semester from Amazon.com
- <http://aws.amazon.com/education/>



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### First Experiences



Instructor Permission?

+3  
Weeks


Access to systems

- In person
- SMS
- Date format "backwards"

+1  
Weeks


Grade reporting

- Diff. calendar
- Fin Aid req's



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### First Experiences



Admission

- Non-degree transcripts
- "Pre-enrollment health requirement form"


Access to systems

- How??
- Two usernames?

Payment

- "What agreement?"
- \$1800 bill (Feb)
- Misplaced paperwork
- Tuition waived (Jun)
- Residual fee (\$292)

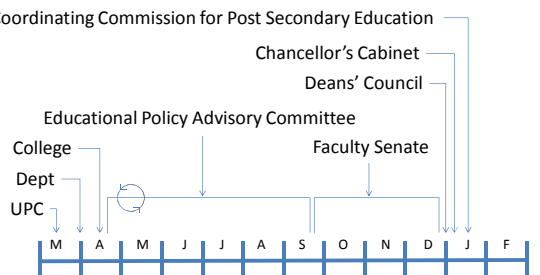
+4  
Weeks



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### Certificate Approval Process

Coordinating Commission for Post Secondary Education




College  
Dept  
UPC

Educational Policy Advisory Committee  
Faculty Senate


Chancellor's Cabinet  
Deans' Council

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### Process Improvements



UNIVERSITETET I AGDER



UNIVERSITY OF  
Nebraska  
Omaha


- Fast instructor approval
- Fast on-line application
- Initial login credentials via e-mail
- Initial "read" access pending formal registration
- Documented process, roles, responsibilities
- High touch guidance
- Negotiation with VC on fees
- Student orientation

before  4 wks

after  2 days

before  4 wks


after  4-6 days



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### Lessons

- The technology is not the major challenge
- Each institution is weird in its own way
- Delay has a silver lining
- Be willing to take risks and experiment
- Be willing to hold hands
- Be willing to take one for the team



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