

## Getting started with Enterprise Systems Education

Angelo F. Corridori  
Marist College

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## Problem

If you are unfamiliar with Enterprise Systems, how do you begin to introduce Enterprise System content to undergraduates?

- Do you have to study Enterprise Systems to become an expert yourself?
- Do you have to prepare to teach an entire course?
- Do you have to develop an entire curriculum?
- Where do you start?

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- Agenda
  - Start small/simple
  - Build your knowledge/expertise and contacts
  - Offer a course or course sequence

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## **Use an Enterprise System topic in an existing CS or ITS class**

- Choose a topic you are familiar with and bridge to the Enterprise Computing equivalent
- Topics likely already included in an existing CS or ITS class
  - Virtual Storage
  - Dispatcher (CPU scheduling)
  - Hardware/Architecture (interrupts, registers, process control blocks, etc.)
  - UNIX !
- Choose a topic unique to Enterprise Systems to augment an existing class
  - Goal Oriented Workload Manager
  - Coupling Facility hardware assist for clustering
  - Rapid Disaster Recovery using disk replication and automation
- Have your students research an Enterprise Computing topic
  - IBM Journal of Research and Development
  - IBM Systems Journal

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## Use outside expert(s) familiar with Enterprise Computing

- Use an Enterprise Computing subject matter expert to provide an in class discussion with the students to provide a contrast between Enterprise Systems Computing and other types of computing
- Have an Enterprise Computing subject matter expert do a lecture/topic for you
- Have an Enterprise Computing subject matter expert do a class for you

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## An Example of SMEs delivering a class

- **Minnesota State University**
- Contact sequence by professor
  - Attended local Academic Initiative Presentation (3/2007)
  - Attended IBM Academic Initiative Training (7/2007)
- Professor negotiates content
  - Asked local resources for assistance to use Academic Initiative Materials
  - Local System z SME meets with professor to review objectives
  - Based on meeting local System z SME builds a team of SMEs
- Delivery of pilot class (1/2008 – 5/2008)
  - SME Team were adjunct professors
    - Two IBM System z SMEs
    - One IBM Customer System z SME

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## An Example of SMEs delivering a class

- **Minnesota State University (cont'd)**
- **Delivery of Pilot Class (1/2008 – 5/2008) - cont'd**
  - Professor coordinated use of z/OS Servers, at Marist College, for classroom TSO labs
    - Local teaching
    - One IBM Customer System z SME
  - Refine materials/offering
    - SMEs review Academic Initiative materials
    - Modified to current levels, for clarity, and usability based on SMEs knowledge and experience
  - Transfer materials to professor
    - At the end of each classroom session
  - SMEs taught all classes with professor in the classroom
    - stayed involved to answer all questions

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- Select one of the IBM AI classes that will fit into your curriculum (possibly as an elective)
- Consider building a faculty team to team teach the class
- Review course materials and adapt as necessary
- Have a long range goal in mind
  - Is this the first of a multi-course sequence?
  - Is this a “stand alone” class?
- Review supporting materials
  - IBM Redbooks
  - IBM teleconferences
  - Web deliverables
  - IBM classes (some complimentary for faculty)



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- IBM Academic Initiative can help
  - Course materials
    - Available at the IBM AI web site
  - Technology transfer opportunities
    - IBM short classes (vary by geography)
    - IBM teleconferences
    - IBM subject matter experts
      - AI ambassadors
      - Technology focal points (e.g. IMS, DB2, etc.)
    - IBM teach the teachers seminars (yearly)

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- System z vendors other than IBM can help
  - CA and their Academic Associate program...
    - matches various types of requests to the skills of CA volunteers who are interested in helping in the following ways:
      - Guest lectures
      - Industry member of Masters or PhD graduate committee
      - Advisory board participation
      - Campus relationship manager
      - Project supervisor for sponsored senior/capstone projects
      - IT curriculum consulting and advice
      - Product training on CA software for inclusion in curriculum
      - Website: <http://www.ca.com/associate>

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- Where to look for Answers
  - Other educators that have delivered Enterprise Systems materials (ECC, personal contacts, etc.)
  - Redbook Documentation
    - <http://www.redbooks.ibm.com/>
  - zFavorites
    - <http://www-3.ibm.com/systems/z/os/zos/zfavorites/>
      - Reference publications
      - Product publications
      - Glossary
      - Hot Topics newsletters
      - Marketing materials
      - Education pointers

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- Get started now!
- Questions?