## Dan Saxton

Mechanical Option Advisor: Dr. Stephen Treado Due: 3/26/11 STEM Center Delaware County Community College Media, PA

## **Thesis Presentation Outline**

(screen count in parentheses)

- Introductory Slides (10)
  - o Title slide
  - Building and client information
  - o Site plan, Photos
  - o Existing mechanical systems
  - Design objectives
- Mechanical Depth (18)
  - Radiant Floor Heating and Cooling
    - Objective
    - Spaces analyzed
    - Sensible load calculations
      - Floor section
    - Direct sunlight analysis from AGI32
      - Daylight images
    - Latent load calculations
      - Equipment specified
    - Energy calculations and analysis
  - Natural Ventilation
    - Objective
    - Wind data
    - CFD results, (MAE check)
- Acoustical Depth (5)
  - o **Objective**
  - Floor change, reverberation calculations
  - Duct change, room criteria calculations
- Construction Management (5)
  - o **Objective**
  - Cost implications
  - Schedule implications
- Conclusion (4)
  - Cost summary of proposed systems
  - o Overall benefits and disbenefits
- Acknowledgements (1)
- Questions (1)

Total number of screens = 44