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Bioengineering Building
Lighting/Electrical
Dr. Kevin Houser
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- I. Introduction (5 slides)
 - a. Me
 - b. Building introduction
 - c. What is Bioengineering?
 - d. Overall building design concept
 - e. Scope of presentation
- II. Overall Lighting Design Concept (1 slide)
 - a. Briefly mention four designed spaces and highlight two that will be discussed
- III. Lighting depth - Lobby lighting design (8 slides)
 - a. Space Concept
 - b. Design Criteria
 - c. Equipment selection
 - d. Performance & calculations
 - e. Final renderings & evaluation
- IV. Lighting depth – Flax Lab lighting design (8 slides)
 - a. Space Concept
 - b. Design Criteria
 - c. Equipment selection
 - d. Performance & calculations
 - e. Final renderings & evaluation
 - f. Daylighting integration
- V. Interior louver design impact on Flex Lab (10-12 slides)
 - a. Daylight performance of Flex Lab (MAE Daylighting study)
 - b. Mention Schreyer Honors thesis study of Daylight shading systems
 - c. Interior louver design & mention Structural Breadth study of additional load on columns
 - d. Results of louver integration (MAE Daylighting study)
 - e. Mechanical Breadth analysis of louver impact of mechanical loads
- VI. Electrical Depth (2 slides)
 - a. Describe PV analysis and design
- VII. Summary of overall building design & system integration (3 slides)
 - a. Tie every piece of the thesis together
 - b. Acknowledgements
- VIII. Questions (5-10 additional slides)

*Estimated about 39 total spreads for the presentation (not including additional slides for questions)