Disruption in the Classroom

Faster
Better
Cheaper

Old “Space Drivers”

Wake Forest University Space Planning Guidelines

The space factor formula used is:

$$\text{Space factor} = \frac{\text{Station size}}{\text{Hrs. per week x Occupancy Rate}}$$

The space factor is than multiplied by the Weekly Student Contact Hours (WSCH) to produce the ASF required for classrooms.

For example:

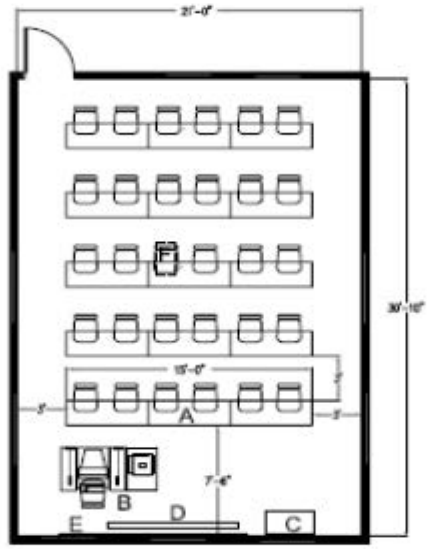
$$\frac{20}{25 \times .65} = 1.23 \text{ factor}$$

Therefore 6,000 WSCHs would require 7,380 ASF of classroom space (1.23 x 6,000).
This formula calculates the total classroom space requirements. While the average station size being used is 20 ASF, the University will require a wide variety and size of classrooms. Some rooms may be 15 ASF per station, others may be 30 ASF or higher per station. The average station size is reflects current conditions, and recognizes recent trends in instruction based on more group discussion and to provide greater flexibility in room furnishings and layouts to accommodate a variety of learning methods. The recommended weekly hour usage rate represents current scheduling conditions as well.
The following layouts provide examples of various classrooms.

Old “Space Drivers”

- How Many Students?
- (Some pre determined square foot assignment)
- Rows of chairs/tables
- Modest circulation
- Little re-configurability
- Single front facing focus

Classroom – Capacity 30 647 ASF



A. TABLE/ CHAIR
B. INSTRUCTOR WORKSTATION
C. LAYOUT TABLE
D. PROJECTION SCREEN
E. WHITE BOARD
F. CEILING MOUNTED PROJECTOR

How does active learning change space planning and learning space design?

- Not teacher focused
- There is no “front of the room”
- Shift from single node to multi-nodal environment (more fronts)
- Activities less structured
- Students move around more
- Different furniture arrangements
- More circulation space
- Classrooms become larger

Active Learning – New “Space Drivers”

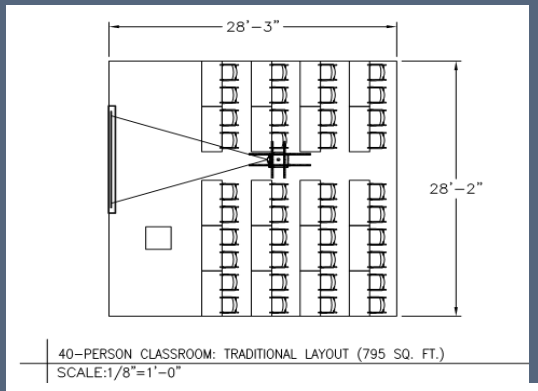
Overall Group Size
Breakout Group Size

How many participants at each table?
(5,6,7,8,9)

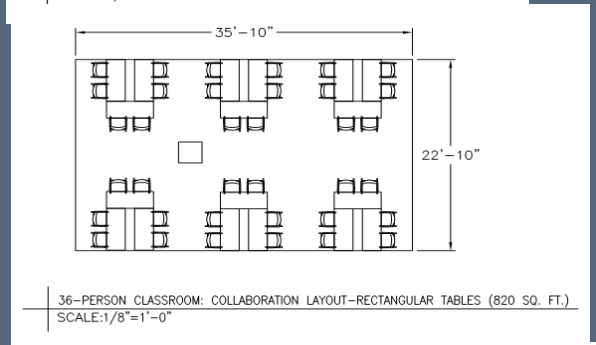
TABLE SHAPE

Rectangular
Circular

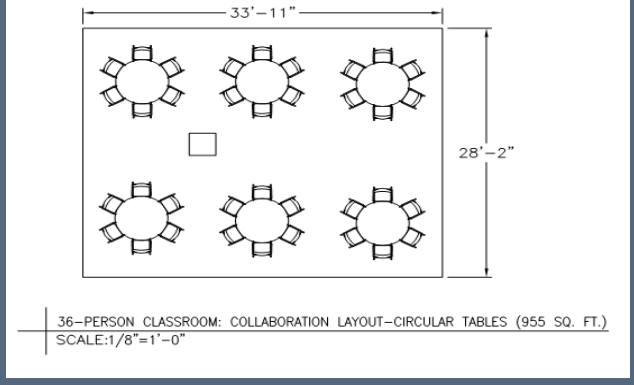
ALTERNATIVE FURNITURE ARRANGEMENTS



40–PERSON CLASSROOM: TRADITIONAL LAYOUT (795 SQ. FT.)
SCALE:1/8"=1'–0"



36–PERSON CLASSROOM: COLLABORATION LAYOUT–RECTANGULAR TABLES (820 SQ. FT.)
SCALE:1/8"=1'–0"



36–PERSON CLASSROOM: COLLABORATION LAYOUT–CIRCULAR TABLES (955 SQ. FT.)
SCALE:1/8"=1'–0"

No. of Students	Furniture Arrangement	Table Shape	NSF
40	Theater	Rectangle	795
36	Active Learning	Rectangle	820
36	Active Learning	Circular	955

24 Hour Surveillance

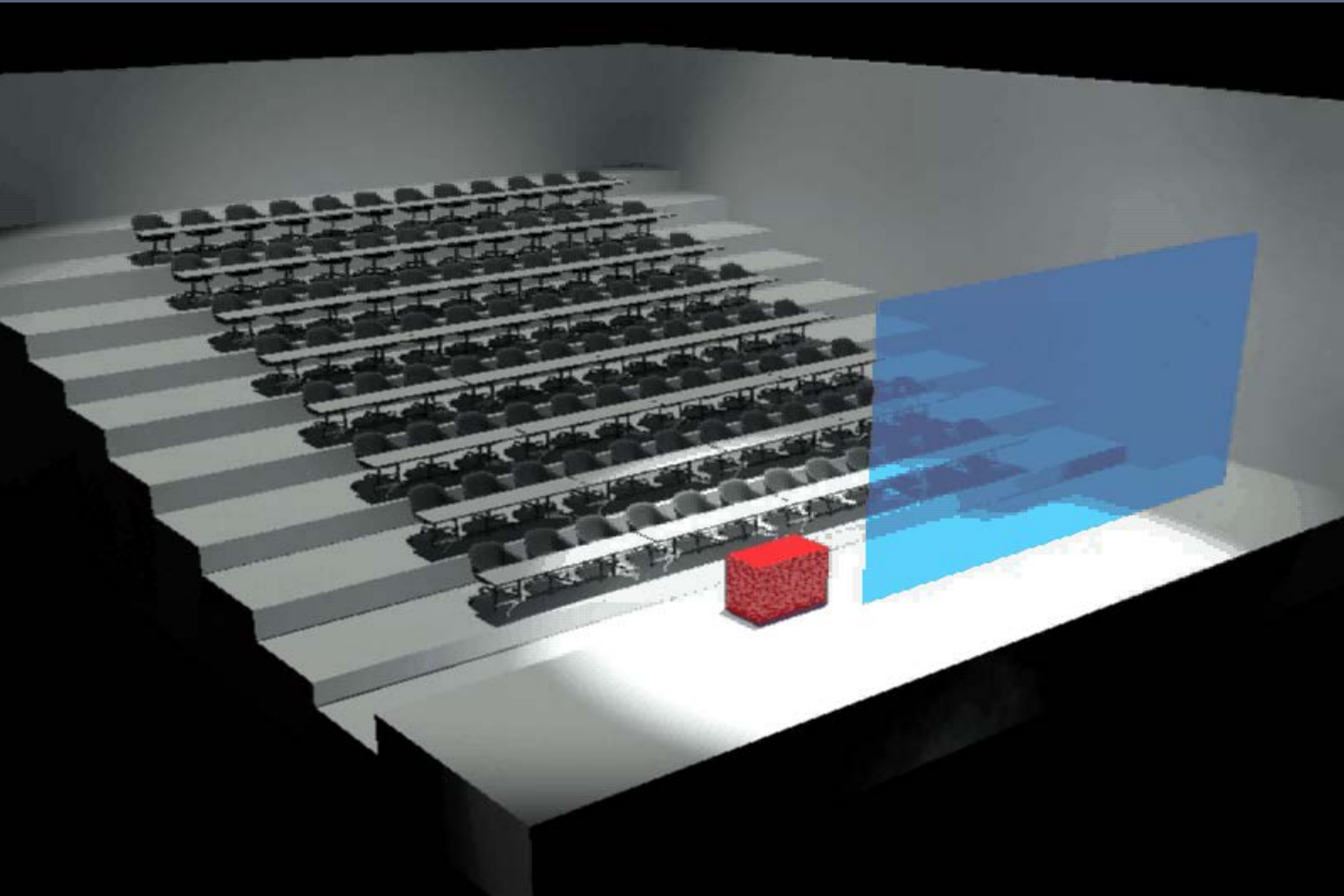
DELL
PolyVision

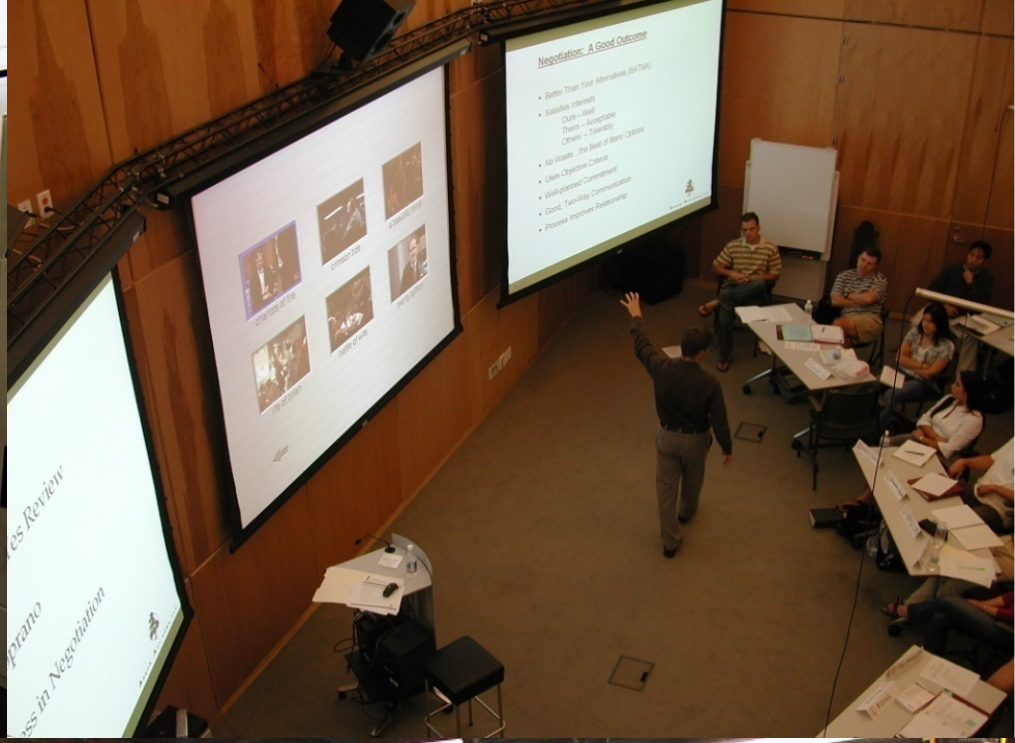
Samuel Taylor Coleridge
(1772-1834)

Other space impacts

- Do we need as many large lecture halls going forward?
- Where and how will we create the on-line content?
- Importance of lecture capture an video origination?
- How can we design larger classrooms to be more “interactive”?

Swarthmore College Active Learning Lecture Hall




Negotiation: A Good Outcome

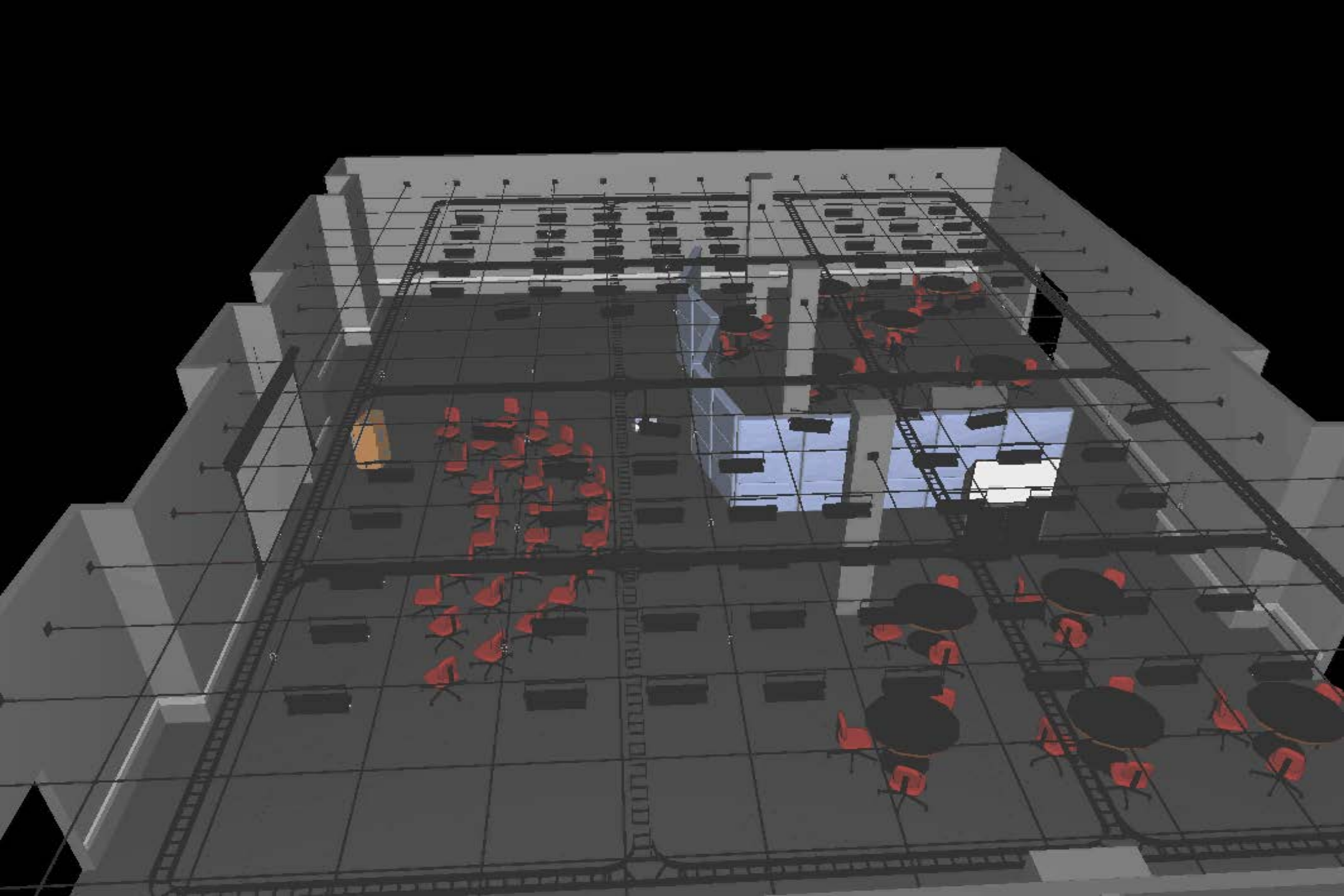
SHIPS ENSEMBLE FORECAST
DEBBY
08/23/00 12 UTC

Learning Commons

WORSLEY

Circulation Desk

Informal Learning Spaces



Small Group Study Rooms

2012 Business Expansion Plan
Action Plan

Learning Everywhere

Remote Collaboration

Our business is.....
preparing competent
practitioners & researchers

Planning for the Future