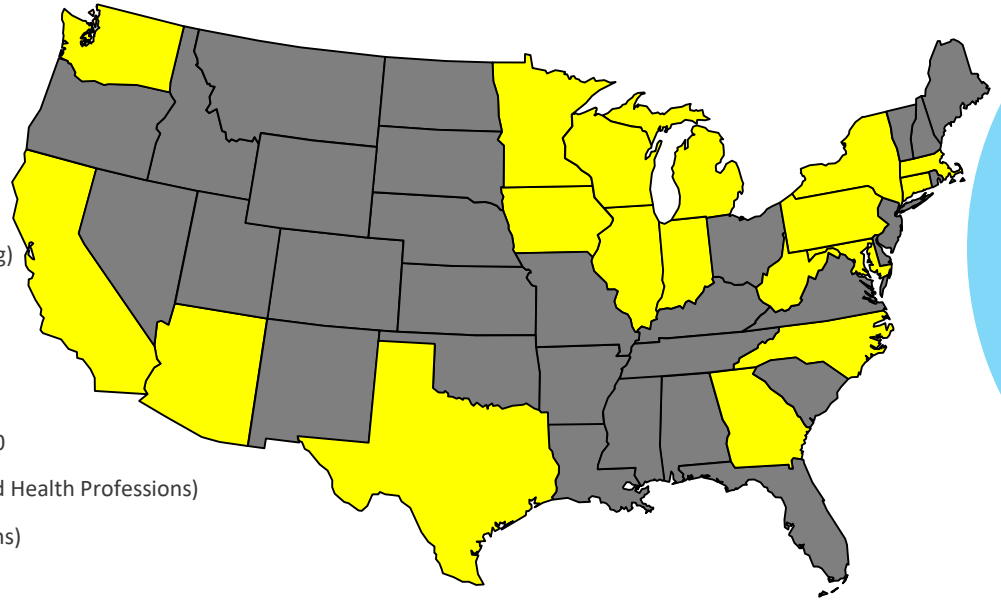
SLAM

09.25.2019

SLAM Sim Portfolio

- Western Michigan University (Medicine)
- Emory University (Medicine)
- Duke University (Medicine)
- University of Wisconsin (Medicine)
- SUNY Upstate Medical (Medicine) - 14174.00
- University of Minnesota (Medicine, Nursing, Pharmacy)
- Indiana University Evansville (Medicine, Nursing, PT/OT)
- University of Texas Austin (Medicine and Nursing)
- University of Illinois Chicago (Medicine)
- Sam Houston State University (Medicine)
- University of Houston (Medicine)
- Duquesne University (Medicine)
- University of Washington (Medicine)
- University Notre Dame, Maryland (Nursing)
- SUNY Buffalo (Pharmacy)
- University of Iowa (Pharmacy)
- University of Georgia (Pharmacy)
- Marshall University (Pharmacy) - 10210.00
- Grand Valley State University (Nursing and Health Professions)
- Sacred Heart University (Health Professions)
- Armstrong State (Health Professions)
- Johns Hopkins Hospital (In-Hospital)
- St. Francis Hospital (In-Hospital)
- UMass Memorial (In-Hospital)
- Norwalk (In-Hospital)



Pharmacy
UI
UB
UGA
MU
SUNY B

Medicine
WMU
Emory
Duke
UW
UIC
SUNY UM
SHSU
DU

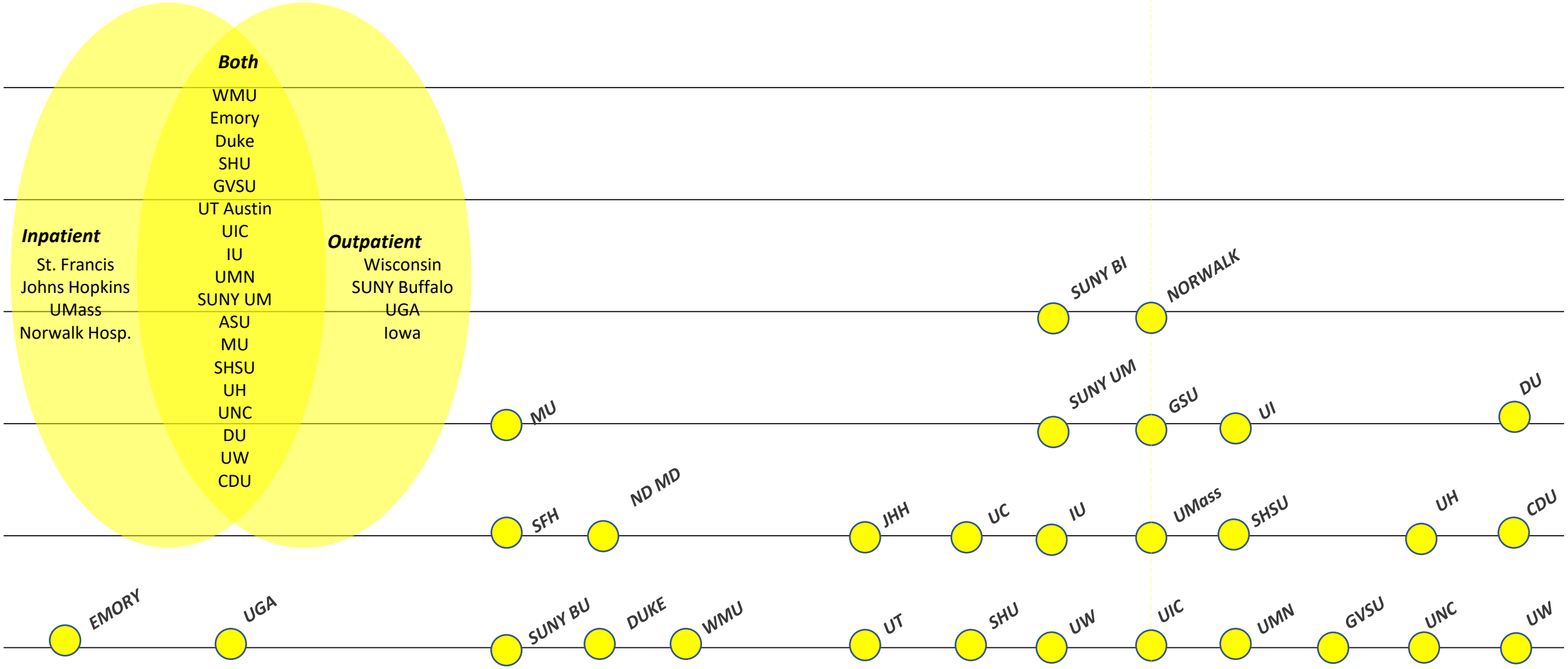
UT
IU
UW
UH
UNC

Nursing & Health Professions
SHU
GVSU
GSU

St. Francis
Johns Hopkins
UMass Memorial
Norwalk

Hospitals

SLAM Sim Portfolio



Emerging Trends

Hospital Simulation

- Debrief Room distribution
- Control Room (centralized vs localized)
- Nurse Station with Pyxis, linens, EHR system
- Simulated Emergency Power
- Manikin Workshop
- Relationship to hospitals & community partners
- Professional training (doctors, nurses, health professionals)
- Isolation/Infectious Disease training
- Data collection & analysis / Research
- In-situ Simulation

Standard Patient Simulation

- Learner write-up
- Separate paths for learners and patients
- Control/Observation area for facilitators and patients
- In-room small group debrief
- Data collection & analysis / Research
- Wearable technology
- Telemedicine
- Digital/Technology based diagnostic tools

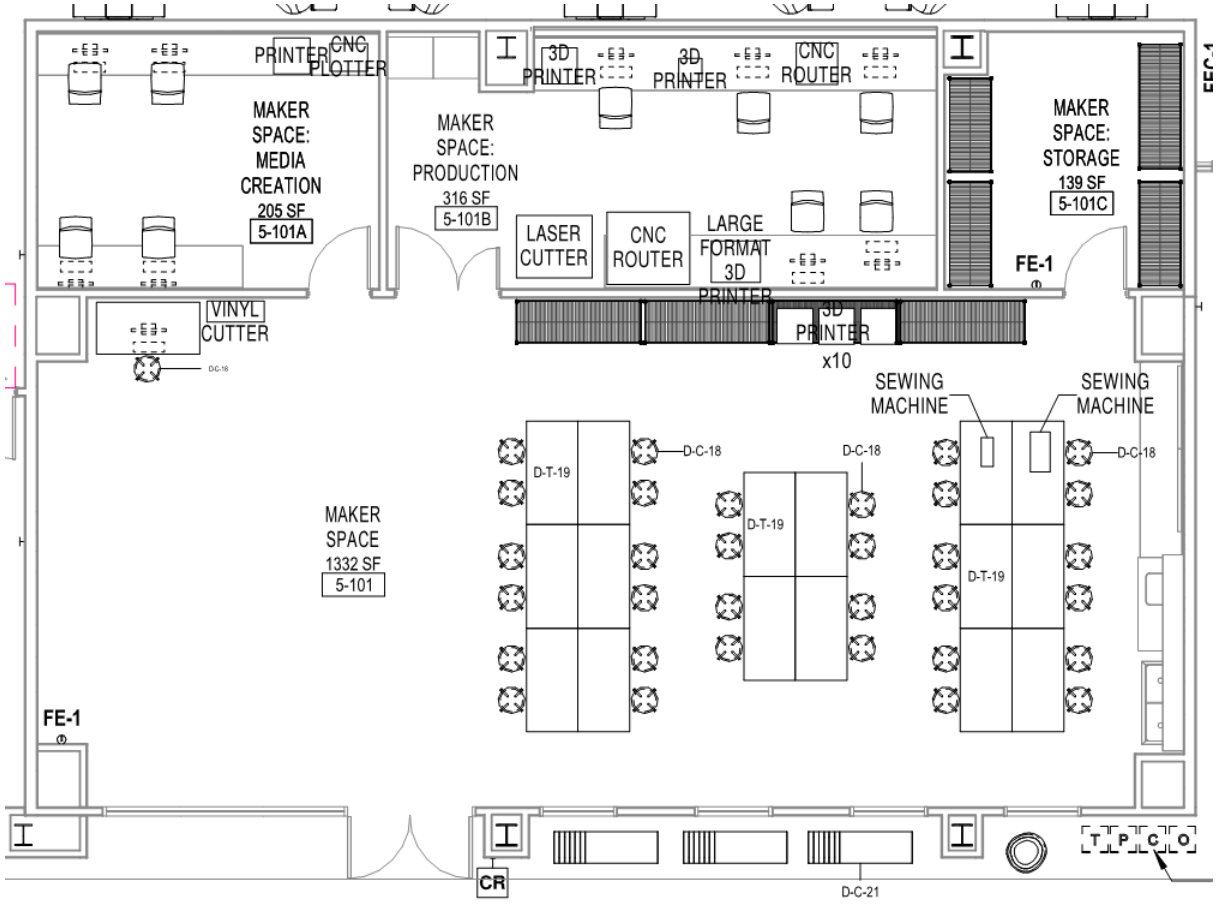
Procedural Skills

- Task Trainer kits
- Surgical Task Trainers
- Flexible rooms, movable partitions
- In-room storage or centralized storage/prep?
- Computer-based training (EHR system? Pyxis?)
- BSL-3 Lab protocols
- Virtual Reality
- Augmented Reality
- Objective-feedback task trainers
- Rapid prototyping of medical/training devices

Other

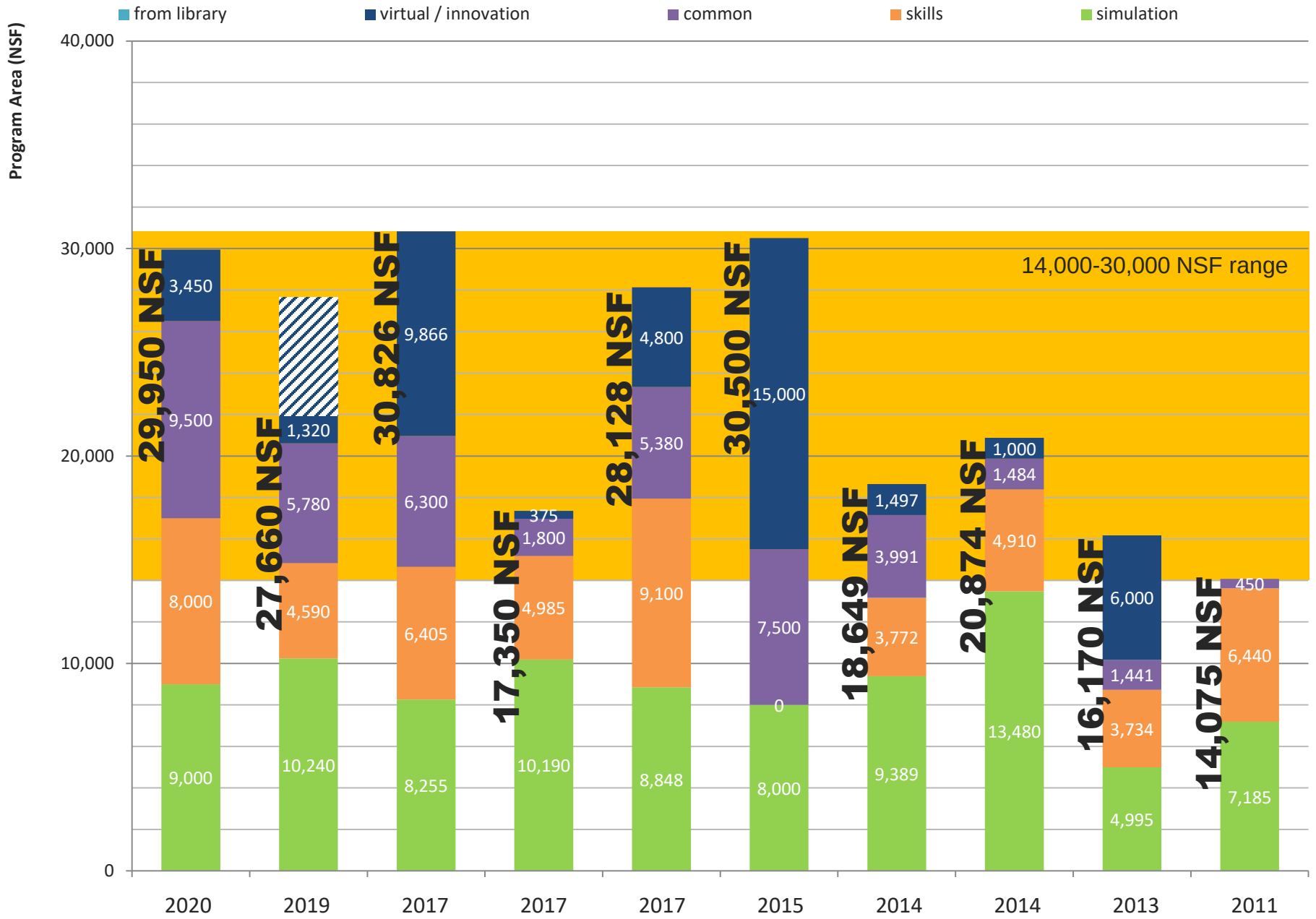
- Robotic Surgery
- Inter-professional Education – continuum of care
- Revenue generation
- Offices and touchdown space
- Support/Storage
- Telemedicine
- Home Health
- Approach to debrief (training vs. teaching)
- AV Integration
- Imaging & Radiology
- Medical device development / 3 party collaborations
- Makerspace, Virtual/Augmented Reality, Emerging Technologies

Health Science Maker Spaces

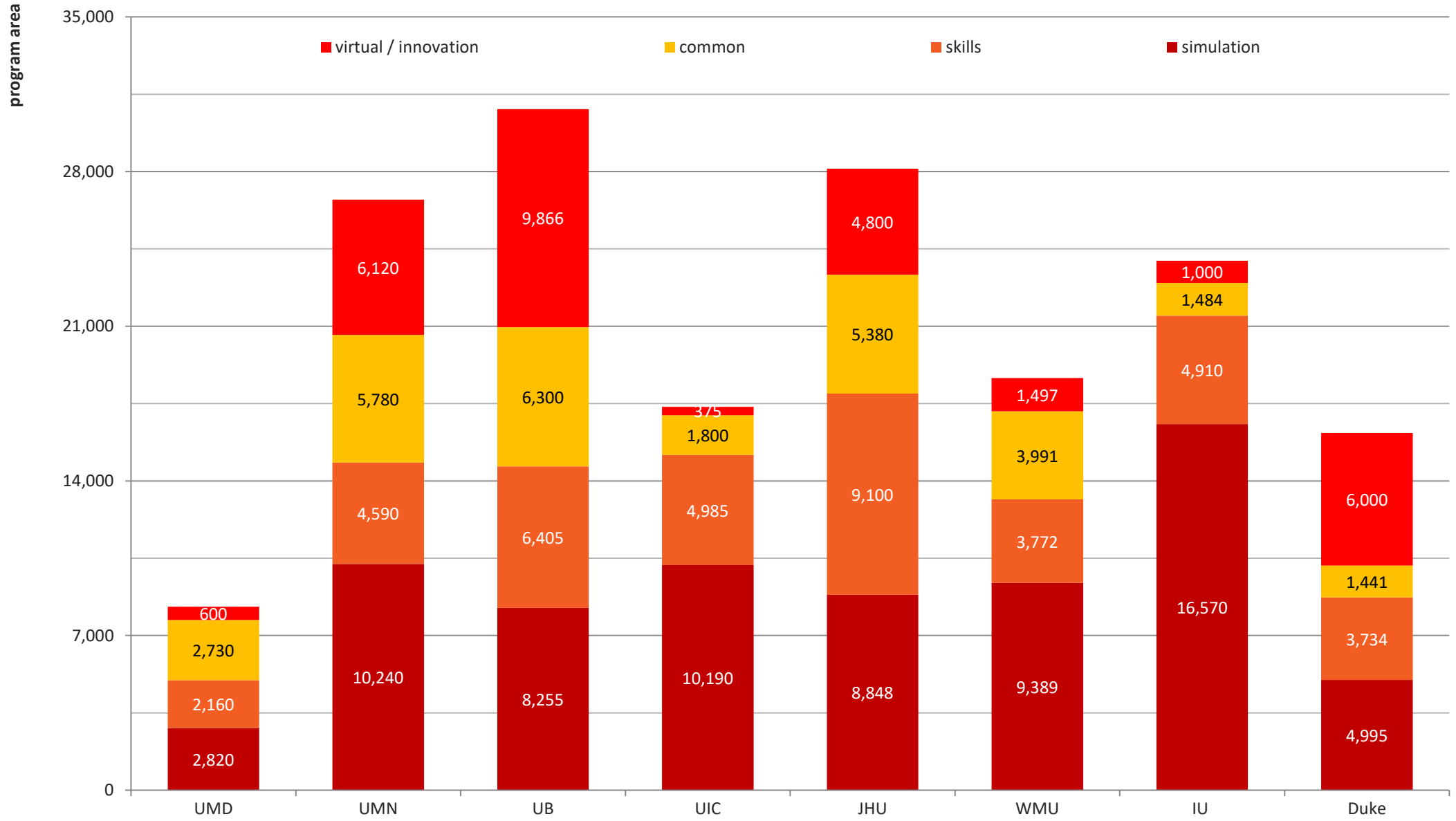


ITEM INFORMATION	F/I	Funding	Software/ Licensing	PURCHASING				
ITEM DESCRIPTION				PPU	EXISTING TO MOVE	TO PURCHASE	TOTAL NEEDED	BASIS OF DESIGN
EQUIPMENT								
Sewing Machine	OFOI	EQUIP		$ 350.00	0	1	1	Janome Magnolia 7318
Sewing Machine	OFOI	EQUIP	X	$ 1,000.00	0	1	1	Brother SE1800
Vinyl Cutter	OFOI	EQUIP	X	$ 2,000.00	0	1	1	Roland CAMM-1 GS-24 on stand
PC to run vinyl cutter	OFOI	TBD	X		0	1	1	
Mobile Monitor Carts	OFOI	EQUIP	X		0	3	3	Samsung QM55F
3D PRINTER - Form 2	OFOI	EQUIP	X	$ 3,500.00	0	3	3	Roland CAMM-1 GS-24 on stand
Formwash	OFOI	EQUIP	X		0	1	1	
Formcure	OFOI	EQUIP	X		0	1	1	
Wire Shelving - Rolling	OFOI	EQUIP		$ 600.00	0	3	3	
Wire Shelving - Stationary	OFOI	EQUIP		$ 600.00	0	3	3	
3D PRINTER - Lulzbot	OFOI	EQUIP	X	$ 2,500.00	0	7	7	Lulzbot Taz 6
PC with Raspberri Pi to run Lulzbot	OFOI	TBD	X		0	7	7	Raspberri Pi 3 Model B
MACHINE - Desktop CNC Router	OFOI	EQUIP	X	$ 2,500.00	0	1	1	Carbide 3D Nomad 883 Pro
MACHINE - Soldering Iron	OFCI	EQUIP		$ 100.00	0	3	3	Hakko FX 888D
MACHINE - Laser Cutter	OFOI	EQUIP	X	$ 10,000.00	0	1	1	Epiog Helix 24 Laser Cutter
Blower	OFOI	EQUIP			0	1	1	2HP - Single Phase Motor Blower: 1350CFM
PC to run laser cutter	OFOI	TBD	X		0	1	1	
Large format 3d printer	OFOI	EQUIP	X	$ 3,500.00	0	1	1	gmax 1.5 XT
PC to run gMax 1.5+	OFOI	TBD	X		0	1	1	
CNC router	OFOI	EQUIP	X	$ 1,500.00	0	1	1	X-Carve 1000mm w/ dust collection system
PC to run CNC router	OFOI	TBD	X		0	1	1	
Shopvac	OFOI	EQUIP		$ 300.00	0	1	1	
Desktop PCs	OFOI	TBD	X		0	4	4	
Lightbox	OFOI	EQUIP		$ 150.00	0	1	1	AmazonBasics Portable Photo Studio
Flatbed Scanner	OFOI	EQUIP	X	$ 200.00	0	1	1	CanoScan 9000F Mark II
Structureed Light Scanner	OFOI	EQUIP	X	$ 43,000.00	0	1	1	Creaform Handyscan 3D
CNC Plotter	OFOI	EQUIP	X	$ 475.00	0	0	0	AxiDraw V3
Color Laser Printer	OFOI	TBD	X	$ 1,100.00	0	0	0	HP Color LaserJet Enterprise CP4025dn
AV								
Mobile Flat Panel Display		AV	X	$ -	0	0	0	
Laptop		AV	X	$ -	0	0	0	
Desktop Computer		AV	X	$ -	0	0	0	
Mobile AV Cart		AV	X	$ -	0	0	0	
Ipad		AV	X	$ -	0	0	0	

Simulation Center Space Benchmarking TOTAL AREA (NSF)

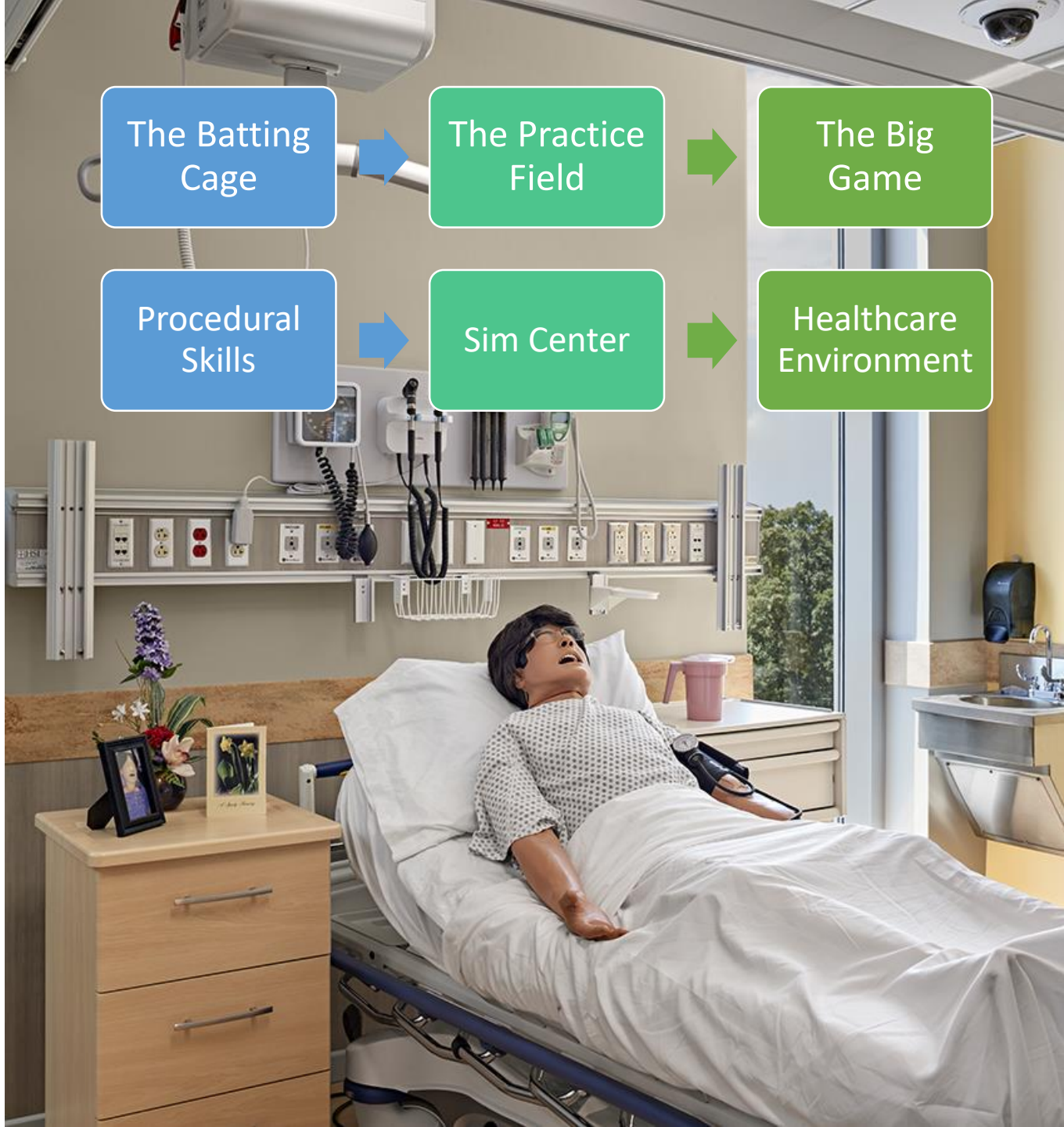


Benchmarking



Planning Considerations

- Level of learners
- Dedicated vs. Generic
- Fixed vs. Flexible
- Clinical vs. Skills
- Low Fidelity vs. High-Fidelity
- Technology/AV Components
  - Cameras, microphones, speakers, etc.
  - Control Rooms (Centralized vs. Distributed)
  - Data/Video capture software
- Efficiency
- Suite/Space Considerations
  - Inpatient Simulation *(Sim Hospital)*
  - Outpatient Simulation *(Standardized Patient Suite, Clinical Skills Suite, OSCE Suite)*
  - Procedural Skills *(Assessment Lab, Multi-Purpose Wet/Dry Lab, Task Trainer Lab)*
  - Soft Space *(Reception, Learner Landing, Faculty Offices & Support)*

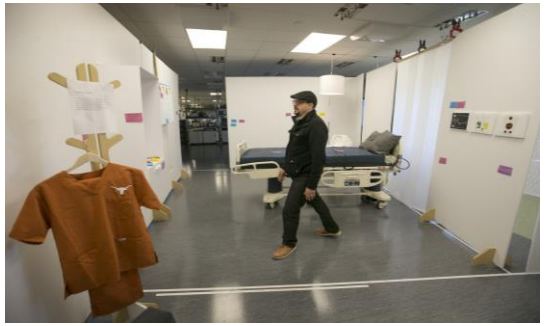


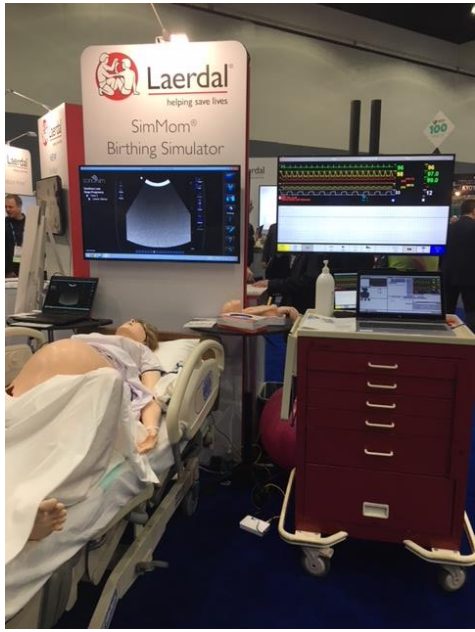
Emerging Trends

- Virtual/Augmented Reality
- Just-In-Time Labs: Self-Guided, Objective Task Training
- Preparing Learners for Home Health
- Health Sciences Maker Spaces
- Offering Sim for Non-typical partners

Virtual Reality

- Flexible, open space for technology to continue to be developed
- Currently mostly single-player, but multi-player sim scenarios are in progress.
- Does not have to be expensive to begin to implement
- Debrief space adjacent
- Isolation important (sensors bobbing can cause dizziness)
- Separate thermostat zone with lower set point – too warm can exacerbate motion sickness. Account for equipment within the room (1 computer per headset).

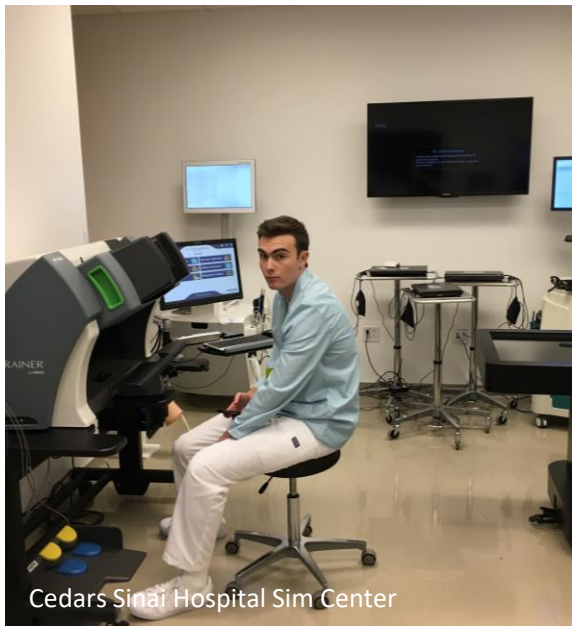




Just-In-Time Labs

- Training for specific skills
- Surgery/procedure prep
- 24/7 access
- Typical for a hospital sim lab or somewhere practicing surgeons have easy access

Johns Hopkins Hospital Blalock Simulation Center


Cedars Sinai Hospital Sim Center

Home Health Environments

- Experts predict the global population of people 80 and older will more than triple between 2015 and 2050, growing from 126.5 million to 446.6 million.
- Greater need for individuals to heal at home or age at home also calls for more health care professionals to treat patients at home
- Especially nursing, physical therapy, occupational therapy, speech therapy, etc.
- Preparing students for home health will increase the their ability to provide patient care when they graduate.

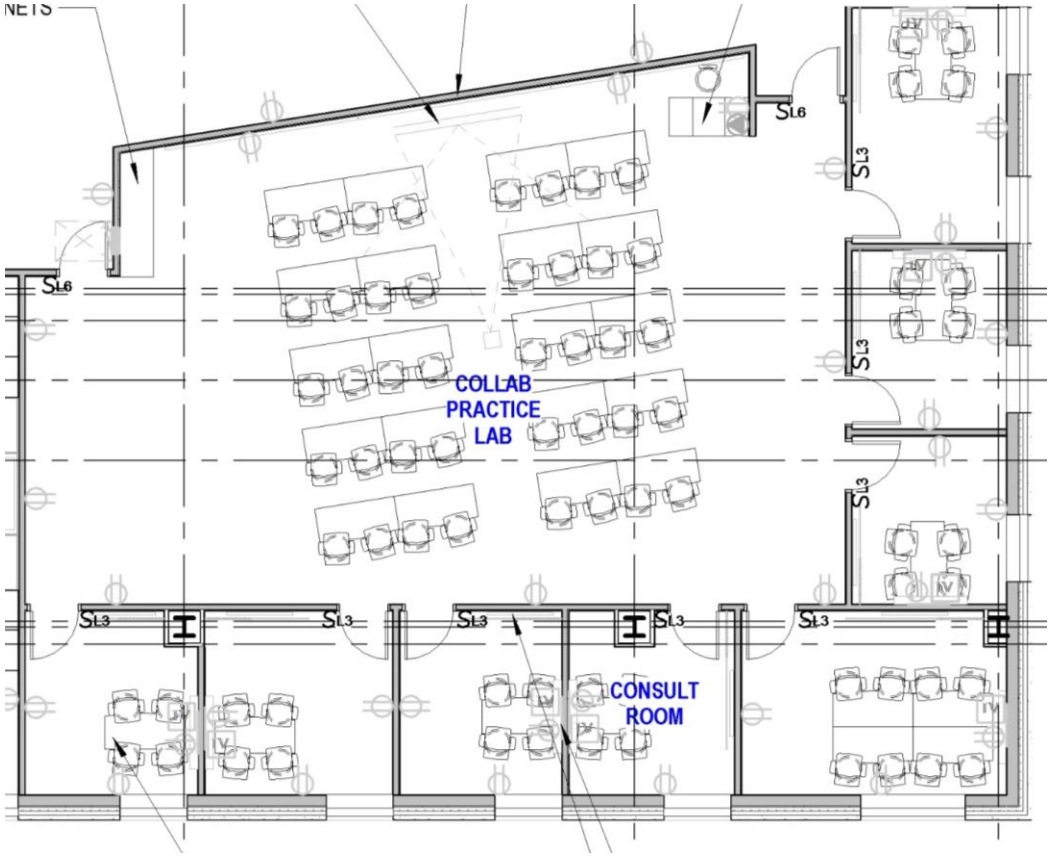
Procedural Skills

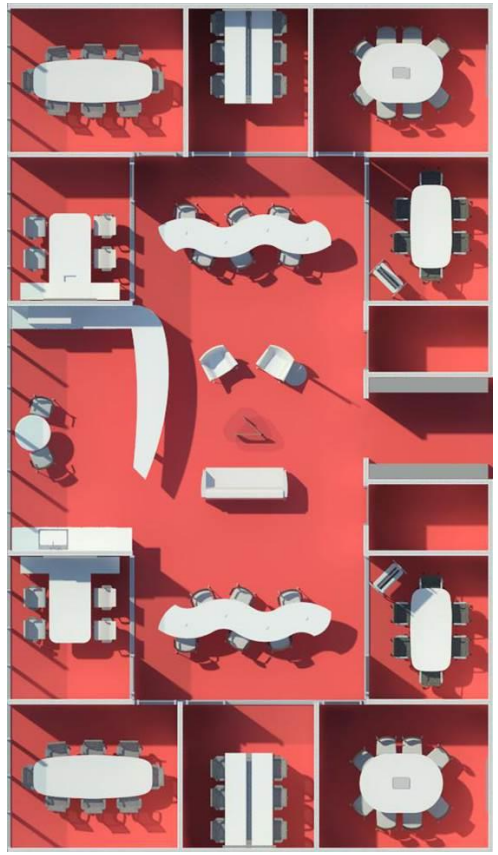
- Large flexible wet/dry space
- Skills and Assessment Labs
- Dedicated “Just-In-Time” skills lab, technology trainers
- Storage required to provide flexibility

SIM for Non-Clinical Scenarios

"Collaborative Lab" provides large group meeting space + small group meeting/consult spaces. Small group spaces can serve as study space and, with proper technology, can flex as additional sim rooms for non-clinical scenarios.

- Social Work
- Home Healthcare
- Education/Teaching
- Divinity/Seminary
- Law Enforcement





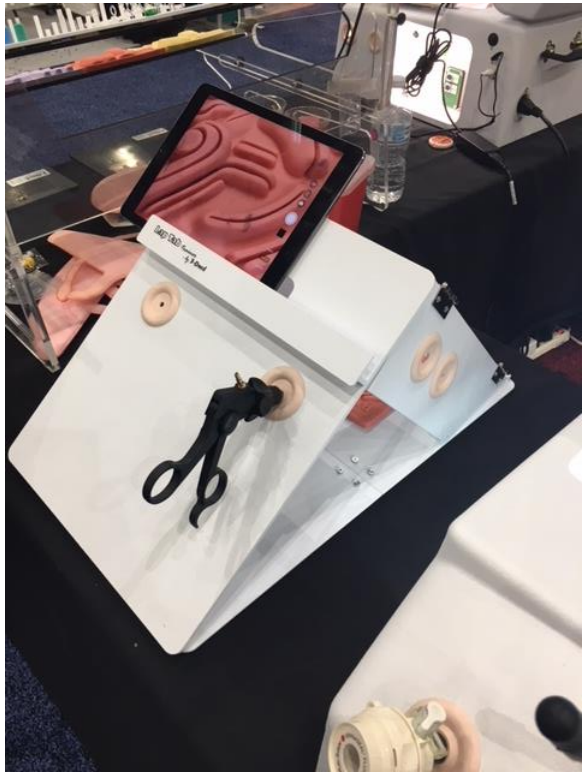
Health Science Maker Spaces

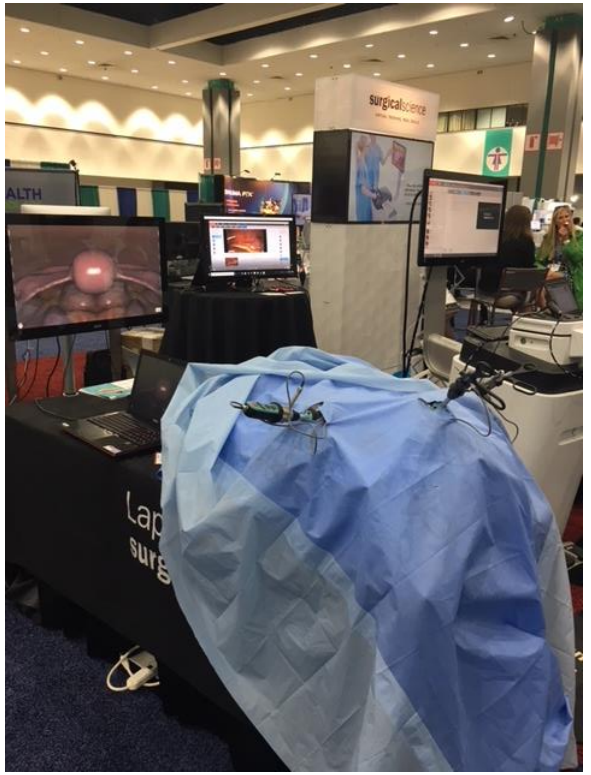
Health Science Maker Spaces

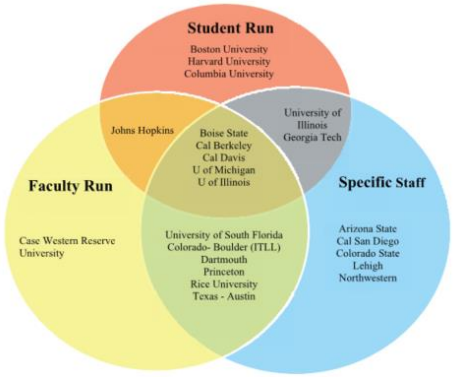
- Provide an extra-curricular means for students to engage in more hands-on projects and to develop skills that may be currently underdeveloped
- Go beyond traditional machine shop environment by offering access to
  - rapid prototyping equipment , 3D printers, laser cutters, and traditional hand tools
  - conceptual design spaces
  - a unique culture that can be transformative to its users

Health Science Maker Spaces

- Relatively young concept
  - First dating back to roughly 2001 at MIT
- Can be traced by to the Do-It-Yourself culture which began outside of the university system
  - Maker spaces started appearing as spaces where members paid membership fees for access to the technology inside.
  - Enabled users to express themselves creatively and be innovative
- As cost of equipment has declined, spaces began to appear in public and academic libraries
- Colleges and university have started to turn toward makerspaces as a compliment to courses already being offered by:
  - Linking material learned in the classroom to the real world
  - Reinforcing adaptive and creative thinking



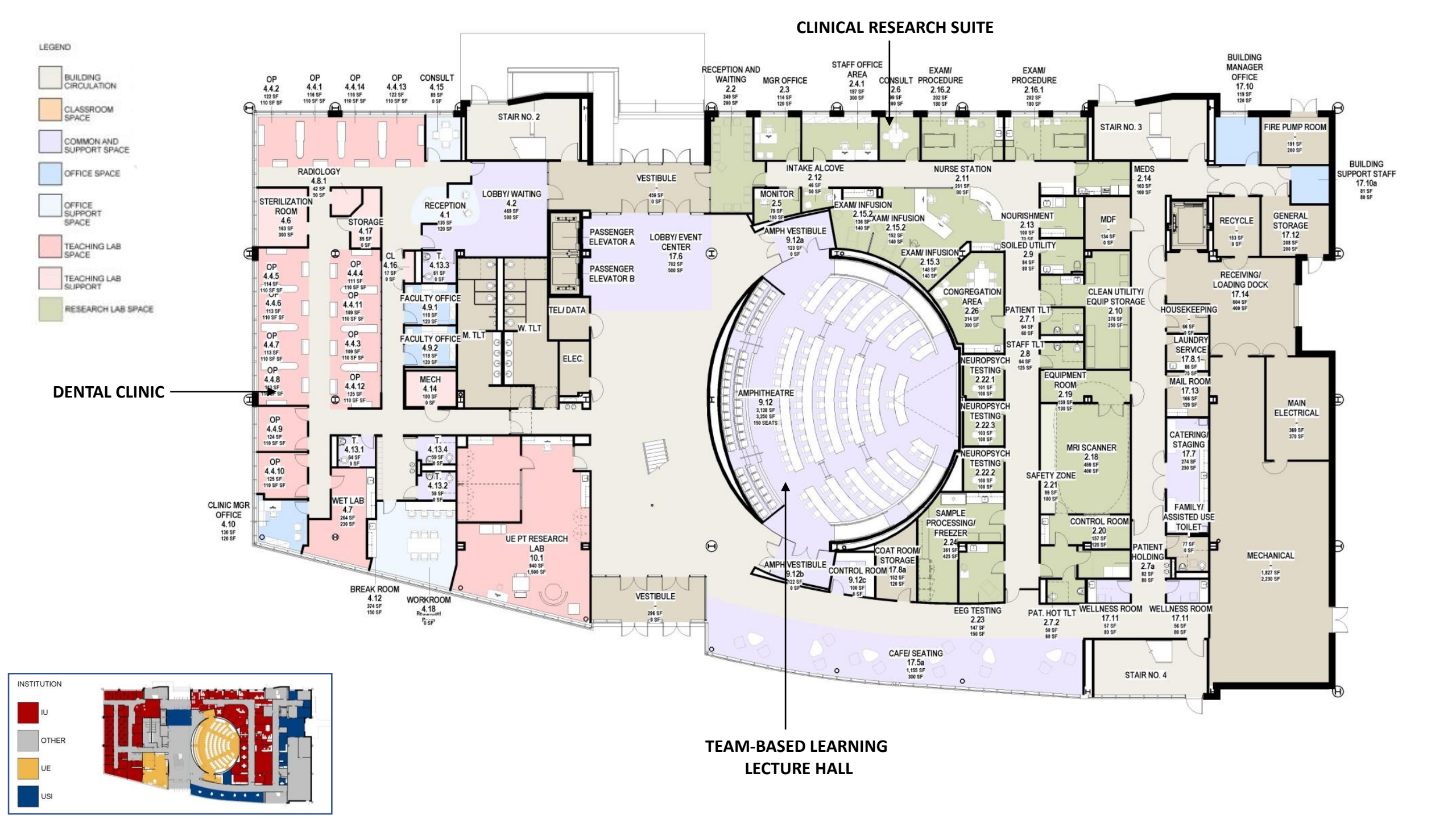




Stone Center for Health Sciences

Evansville, Indiana

CASE STUDY


CLINICAL RESEARCH SUITE
DENTAL CLINIC
TEAM-BASED LEARNING
LECTURE HALL
LEGEND
BUILDING CIRCULATION
CLASSROOM SPACE
COMMON AND SUPPORT SPACE
OFFICE SPACE
OFFICE SUPPORT SPACE
TEACHING LAB SPACE
TEACHING LAB SUPPORT
RESEARCH LAB SPACE
OP 4.4.2
OP 4.4.1
OP 4.4.14
OP 4.4.13
CONSULT 4.15
STAIR NO. 2
RECEPTION AND WAITING 2.2
MGR OFFICE 2.3
STAFF OFFICE AREA 2.4.1
CONSULT 2.6
EXAM/ PROCEDURE 2.16.2
EXAM/ PROCEDURE 2.16.1
BUILDING MANAGER OFFICE 17.10
STAIR NO. 3
FIRE PUMP ROOM
BUILDING SUPPORT STAFF 17.10a
RADIOLOGY 4.8.1
STERILIZATION ROOM 4.6
STORAGE 4.17
RECEPTION 4.1
LOBBY/ WAITING 4.2
VESTIBULE
INTAKE ALCOVE 2.12
NURSE STATION 2.11
MEDS 2.14
MONITOR 2.5
EXAM/ INFUSION 2.15.2
EXAM/ INFUSION 2.15.1
EXAM/ INFUSION 2.15.3
AMPH VESTIBULE 9.12a
NOURISHMENT 2.13
SOILED UTILITY 2.9
MDF
RECYCLE
GENERAL STORAGE 17.12
PASSENGER ELEVATOR A
PASSENGER ELEVATOR B
LOBBY/ EVENT CENTER 17.6
CONGREGATION AREA 2.26
PATIENT TLT 2.7.1
CLEAN UTILITY/ EQUIP STORAGE 2.10
HOUSEKEEPING
RECEIVING/ LOADING DOCK 17.14
LAUNDRY SERVICE 17.8.1
STAFF TLT 2.8
NEUROPSYCH TESTING 2.22.1
NEUROPSYCH TESTING 2.22.3
NEUROPSYCH TESTING 2.22.2
EQUIPMENT ROOM 2.19
MAIL ROOM 17.13
MAIN ELECTRICAL
AMPHITHEATRE 9.12
3,138 SF
3,250 SF
150 SEATS
MRI SCANNER 2.18
SAFETY ZONE 2.21
CATERING/ STAGING 17.7
FACULTY OFFICE 4.9.1
FACULTY OFFICE 4.9.2
M. TLT
W. TLT
TEL/ DATA
ELEC.
MECH 4.14
OP 4.4.5
OP 4.4.6
OP 4.4.7
OP 4.4.8
OP 4.4.4
OP 4.4.11
OP 4.4.3
OP 4.4.12
OP 4.4.9
OP 4.4.10
CL 4.16
T. 4.13.3
T. 4.13.1
T. 4.13.4
T. 4.13.2
CLINIC MGR OFFICE 4.10
WET LAB 4.7
UE PT RESEARCH LAB 10.1
BREAK ROOM 4.12
WORKROOM 4.18
SAMPLE PROCESSING/ FREEZER 2.24
COAT ROOM/ STORAGE 17.8a
CONTROL ROOM 9.12c
CONTROL ROOM 2.20
FAMILY/ ASSISTED USE TOILET
PATIENT HOLDING 2.7a
MECHANICAL
AMPH VESTIBULE 9.12b
EEG TESTING 2.23
PAT. HOT TLT 2.7.2
WELLNESS ROOM 17.11
WELLNESS ROOM 17.11
CAFE/ SEATING 17.5a
1,155 SF
300 SF
STAIR NO. 4
INSTITUTION
IU
OTHER
UE
USI

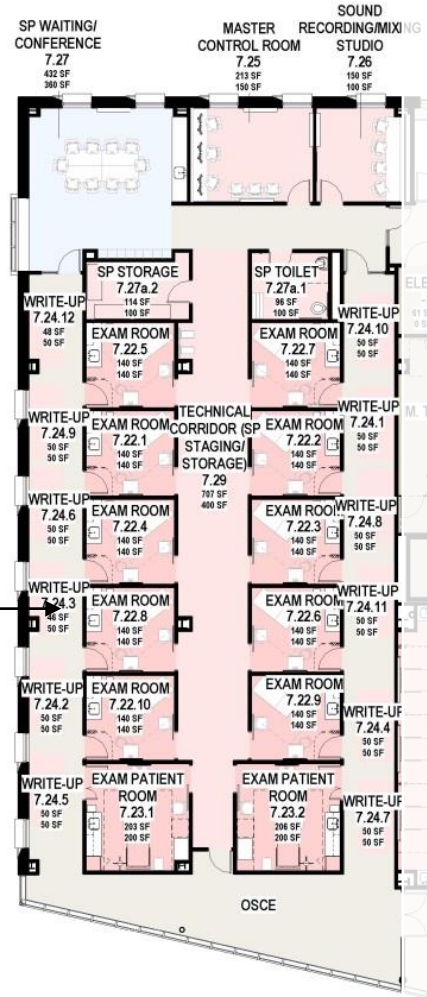

LEGEND
BUILDING CIRCULATION
CLASSROOM SPACE
COMMON AND SUPPORT SPACE
OFFICE SPACE
OFFICE SUPPORT SPACE
TEACHING LAB SPACE
TEACHING LAB SUPPORT
RESEARCH LAB SPACE
SP WAITING/ CONFERENCE 7.27
MASTER CONTROL ROOM 7.25
SOUND RECORDING/MIXING STUDIO 7.26
HOSPITAL SHARED TOUCHDOWN/ RESEARCH OFFICE 7.9
TOUCHDOWN STATIONS 7.12
CLINICAL SKILLS LAB ASSISTANT 7.7
IT/ TECH COORDINATOR 7.8
DIRECTOR 7.4
OPERATIONS MANAGER 7.5
WORKROOM 7.10
STAIR NO. 2
STAIR NO. 3
SIM CLINICAL TECH 7.6
RECEPTION 7.36
PASSENGER ELEVATOR A
PASSENGER ELEVATOR B
SP STORAGE 7.27a.2
SP TOILET 7.27a.1
ELEC.
HSK ?
M. TOILET
W. TOILET
TEL/ DATA
SHAFT
RECYCLE
TECHNICAL CORRIDOR (SP STAGING/ STORAGE) 7.29
WRITE-UP 7.24.12
WRITE-UP 7.24.10
WRITE-UP 7.24.1
WRITE-UP 7.24.9
WRITE-UP 7.24.6
WRITE-UP 7.24.8
WRITE-UP 7.24.3
WRITE-UP 7.24.11
WRITE-UP 7.24.2
WRITE-UP 7.24.4
WRITE-UP 7.24.5
WRITE-UP 7.24.7
EXAM ROOM 7.22.5
EXAM ROOM 7.22.7
EXAM ROOM 7.22.1
EXAM ROOM 7.22.2
EXAM ROOM 7.22.4
EXAM ROOM 7.22.3
EXAM ROOM 7.22.8
EXAM ROOM 7.22.6
EXAM ROOM 7.22.10
EXAM ROOM 7.22.9
EXAM PATIENT ROOM 7.23.1
EXAM PATIENT ROOM 7.23.2
HOSPITAL SIM LAB 7.0
OSCE
GROUP STUDY/ LITE WET LAB 3.9.2
GROUP STUDY/ LITE WET LAB 3.9.1
GROUP STUDY/ LITE WET LAB 3.9.3
GROUP STUDY/ LITE WET LAB 3.9.4
GROUP STUDY LAB PREP/ STORAGE 3.10
WET LAB STORAGE 3.13
DEBRIEFING 7.34.4
DEBRIEFING 7.34.3
DEBRIEFING 7.34.2
DEBRIEFING 7.34.1
SIM STORAGE 7.38.2
N.S. 7.16.5
ROBOTIC SURGERY 7.18
VIRTUAL SURGERY (TASK TRAINERS) 7.17
HI FIDELITY
LARGE SIM LAB 7.15.2
LARGE SIM LAB 7.15.1
CONTROL 7.16.3
CONTROL 7.16.1
SMALL SIM LAB 7.14.1
SMALL SIM LAB 7.14.2
LOCKERS 7.39.2
SHOWERS (M) 6.9
SHOWERS (F) 6.8
TEL/ DATA
ELEC
SERVICE ELEVATOR
M. TOILET
W. TOILET
SHAFT
SIM STORAGE 7.38.1
GA LAB COLD STORAGE 3.4
GA LAB PREP/ STORAGE 3.3
GROSS ANATOMY LAB 3.2.1
GA LOCKERS (M) 3.5.1
GA LOCKERS (F) 3.5.2
LEARNER LANDING 7.37
STAIR NO. 4
SHAFT
CLINICAL SKILLS / OSCE SUITE
PROCEDURAL SKILLS
SIM HOSPITAL
ANATOMY
INSTITUTION
IU
OTHER
UE
USI


LEGEND
BUILDING CIRCULATION
CLASSROOM SPACE
COMMON AND SUPPORT SPACE
OFFICE SPACE
OFFICE SUPPORT SPACE
TEACHING LAB SPACE
TEACHING LAB SUPPORT
RESEARCH LAB SPACE
PHYSICAL THERAPY LAB
CLASS LAB STORAGE 10.5
STAIR NO. 2
ELEC
HSK
M. TOILET
W. TOILET
PASSENGER ELEVATOR A
PASSENGER ELEVATOR B
TELE/DATA
SHAFT
RECYCLE
CLASS LAB (PT) 10.4
USI GENERAL CLASSROOM 16.3.2
UE PA ADMIN ASST/ RECEPTION 9.8
UE FACULTY OFFICE 9.1.9
UE FACULTY OFFICE 9.1.10
UE FACULTY OFFICE 9.1.11
UE FACULTY OFFICE 9.1.12
UE FACULTY OFFICE 9.1.13
UE FACULTY OFFICE 9.1.14
UE FACULTY OFFICE 9.1.15
UE FACULTY OFFICE 9.1.16
UE FACULTY OFFICE 9.1.1
UE FACULTY OFFICE 9.1.2
UE FACULTY OFFICE 9.1.3
UE FACULTY OFFICE 9.1.4
UE FACULTY OFFICE 9.1.5
UE FACULTY OFFICE 9.1.6
UE FACULTY OFFICE 9.1.7
UE FACULTY OFFICE 9.1.8
STAIR NO. 3
UE OFFICE 9.1.17
RESOURCE ROOM 9.10
UE PA CHAIR OFFICE 9.6
UE PT ADMIN ASSISTANT 9.4
SERVICE ELEVATOR
UE PT CHAIR OFFICE 9.3
UE STORAGE 9.7
TEL/ DATA
ELEC
M. TOILET
W. TOILET
SHAFT
USI GENERAL CLASSROOM 16.3.1
OT DRY LAB 13.2
MSN/DSP GENERAL LECTURE 14.3
MSN/DSP GENERAL LECTURE 14.3
OT CLASSROOM 13.4
ACC BSN GENERAL LECTURE 15.3.1
ACC BSN FACULTY 15.1.1
ACC BSN FACULTY 15.1.2
USI FACULTY 16.1.3
ACC BSN FACULTY 15.1.4
ACC BSN FACULTY 15.1.5
ACC BSN FACULTY 15.1.3
MSN/DSP FACULTY 14.1.6
MSN/DSP FACULTY 14.1.5
MSN/DSP FACULTY 14.1.4
MSN/DSP FACULTY 14.1.3
MSN/DSP FACULTY 14.1.2
MSN/DSP FACULTY 14.1.1
LOCKERS 6.7.6
LOCKERS 6.7.6
LOCKERS 6.7.6
USI ADMIN 16.1b
OT RESOURCE 12.3b
OT FACULTY 12.3.2
OT FACULTY 12.3.1
OT CHAIR 12.2
MSN/DSP SEMINAR 14.4.1
MSN/DSP SEMINAR 14.4.2
ACC BSN GENERAL LECTURE 15.3.2
USI FACULTY 16.1.1
USI FACULTY 16.1.2
USI ADMIN 16.1a
STAIR NO. 4
SHAFT
INSTITUTION
IU
OTHER
UE
USI

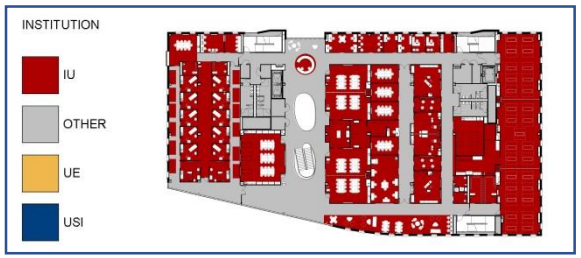

LEGEND
BUILDING CIRCULATION
CLASSROOM SPACE
COMMON AND SUPPORT SPACE
OFFICE SPACE
OFFICE SUPPORT SPACE
TEACHING LAB SPACE
TEACHING LAB SUPPORT
RESEARCH LAB SPACE
GME RESIDENCY PROGRAM DIRECTORS 5.1e
GME DIRECTOR 5.1c
GME DIRECTOR OF OPS 5.1b
GME EXECUTIVE DIRECTOR 5.1a
GME ADMIN ASSISTANT 5.1d
GME RECEPTION 5.3
FOUNDATION STORAGE 1.9
OPERATIONS STORAGE 1.12
OPERATIONS OFFICE 1.11
FOUNDATION OFFICE 1.8.1
FOUNDATION OFFICE 1.8.2
FOUNDATION OFFICE 1.8.3
ASSISTANT DIRECTOR 1.2
ASSOCIATE DEAN/ DIRECTOR 1.1
FOUNDATION ADMIN ASSISTANT 1.8a
GME BREAK ROOM 5.4.1
GME TOUCHDOWN 5.1f
GME WORK ROOM 5.4a.1
STAIR NO. 2
HEALTH SCIENCES BREAKOUT 6.1.3
ELEV MACH A
ELEV MACH B
ELEC.
HSK
PASSENGER ELEVATOR A
PASSENGER ELEVATOR B
M. TOILET
W. TOILET
TELE/DATA
SHAFT
RECYCLE
SHARED OFFICE 1.6.1
SHARED OFFICE 1.6.4
SHARED OFFICE 1.6.3
SHARED OFFICE 1.6.2
FOUNDATION WORK ROOM 5.4a.2
FOUNDATION BREAK ROOM 5.4.2
CONFERENCE 2.33.1
RECEPTION/ WAITING 1.4
HEALTH SCIENCES LIBRARY READING ROOM 6.1.1
HEALTH SCIENCES BREAKOUT 6.1.2
MEDICAL STUDENT LOUNGE 6.3
KITCHENETTE 6.2.1
GROUP STUDY/ FOCUS ROOM 3.8.1
GROUP STUDY/ FOCUS ROOM 3.8.5
FACULTY 1.5.1
FACULTY 1.5.2
FACULTY 1.5.3
FACULTY 1.5.4
FACULTY 1.5.5
FACULTY 1.5.6
FACULTY 1.5.7
FACULTY 1.5.8
FACULTY 1.5.9
FACULTY 1.5.10
FACULTY 1.5.11
FACULTY 1.5.12
CLERICAL 1.3.1
CLERICAL 1.3.2
CLERICAL 1.3.3
CLERICAL 1.3.4
FACULTY 1.5.14
FACULTY 1.5.13
FACULTY 1.5.15
ADMIN SUITE KITCHENETTE 1.15a
CLASSROOM 3.12.1
UE CLASSROOM (PT) 10.3
CLASSROOM 3.12.2
UE CLASSROOM 10.2
LOCKERS 6.7.10
LOCKERS 6.7.9
STAIR NO. 3
SERVICE ELEV MACH
SM GROUP STUDY 3.9.1
SM GROUP STUDY 3.9.2
SM GROUP STUDY 3.9.4
SM GROUP STUDY 3.9.3
SM GROUP STUDY 3.9.4
TEL/ DATA
ELEC
M. TOILET
SHAFT
W. TOILET
GROUP STUDY/ FOCUS ROOM 3.8.4
GROUP STUDY/ FOCUS ROOM 3.8.3
GROUP STUDY/ FOCUS ROOM 3.8.2
COPY/ FILE/ SUPPLY 2.34.1
WORKSTATION 2.31.1
RESOURCE ROOM 1.14
OFFICE (MD) 2.29
OFFICE (SM) 2.30.1
OFFICE (SM) 2.30.9
OFFICE (SM) 2.30.2
OFFICE (SM) 2.30.8
OFFICE (SM) 2.30.3
OFFICE (SM) 2.30.7
ADMIN 2.32.3
ADMIN 2.32.1
ADMIN 2.32.2
OFFICE (SM) 2.30.6
OFFICE (SM) 2.30.5
OFFICE (SM) 2.30.4
KITCHENETTE 6.2.2
CONFERENCE 2.33.2
STAIR NO. 4
SHAFT
GRADUATE FACULTY LOUNGE 6.4
INSTITUTION
IU
OTHER
UE
USI

LEGEND

- BUILDING CIRCULATION
- CLASSROOM SPACE
- COMMON AND SUPPORT SPACE
- OFFICE SPACE
- OFFICE SUPPORT SPACE
- TEACHING LAB SPACE
- TEACHING LAB SUPPORT
- RESEARCH LAB SPACE



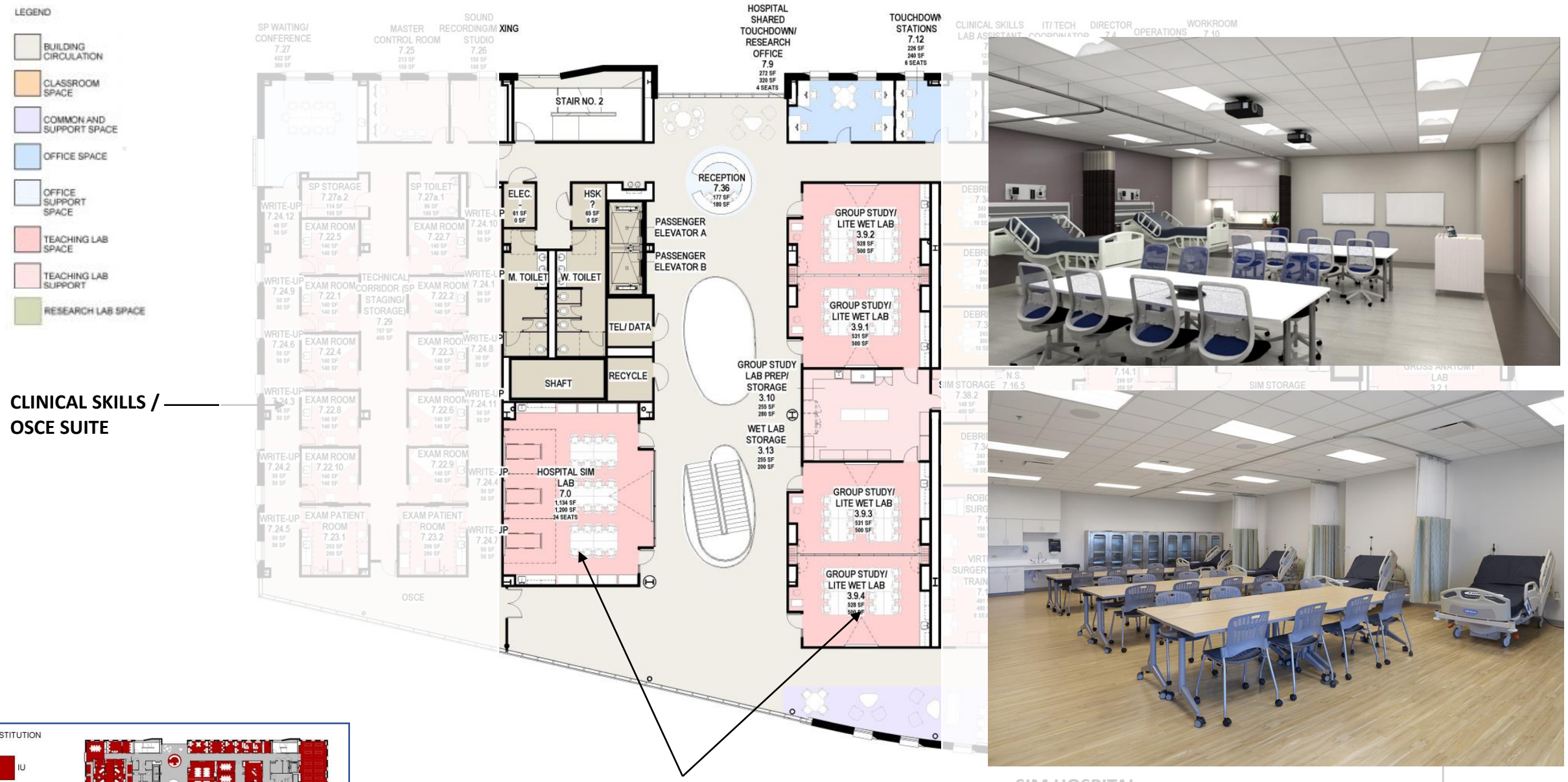
CLINICAL SKILLS / OSCE SUITE



PROCEDURAL SKILLS

SIM HOSPITAL

ANATOMY



CLINICAL SKILLS / OSCE SUITE

PROCEDURAL SKILLS

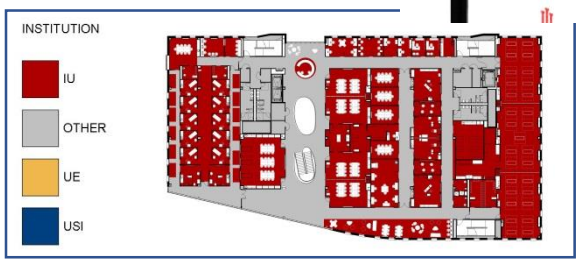
SIM HOSPITAL

ANATOMY

LEGEND

- BUILDING CIRCULATION
- CLASSROOM SPACE
- COMMON AND SUPPORT SPACE
- OFFICE SPACE
- OFFICE SUPPORT SPACE
- TEACHING LAB SPACE
- TEACHING LAB SUPPORT
- RESEARCH LAB SPACE

FLEXIBLE SIMULATED HOSPITAL ROOMS + OR



PROCEDURAL SKILLS

SIM HOSPITAL

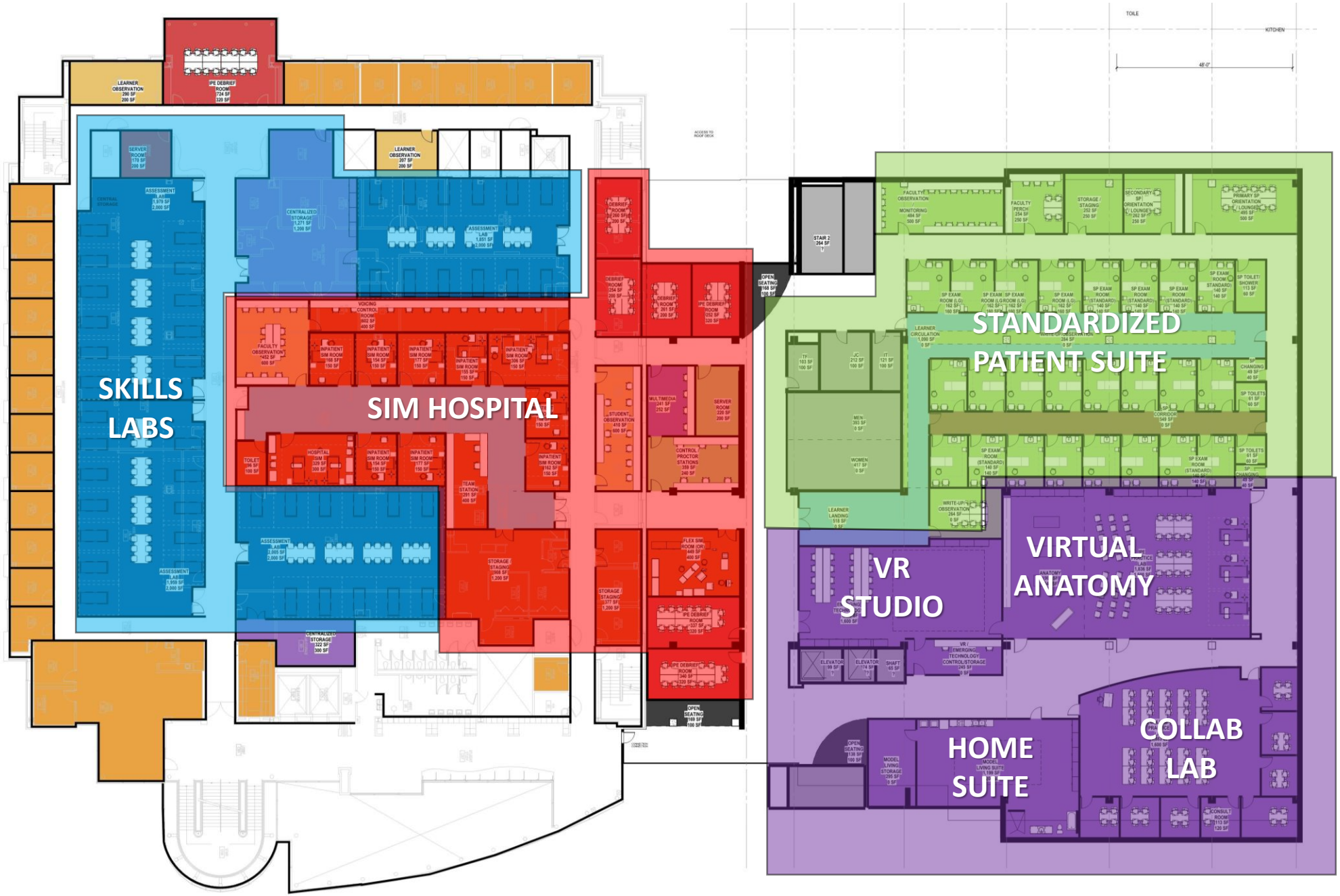
ANATOMY

DeVos Center for Interprofessional Health

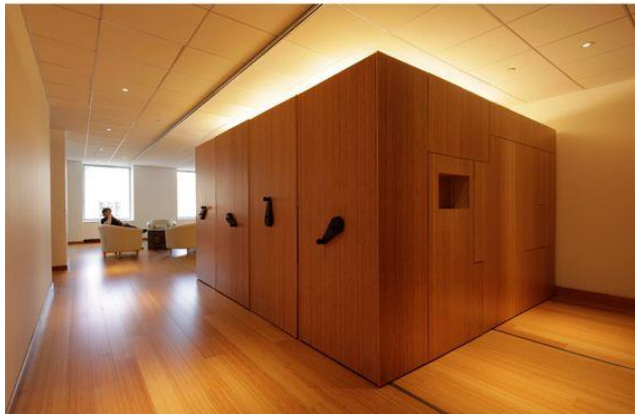
Grand Rapids, Michigan

CASE STUDY

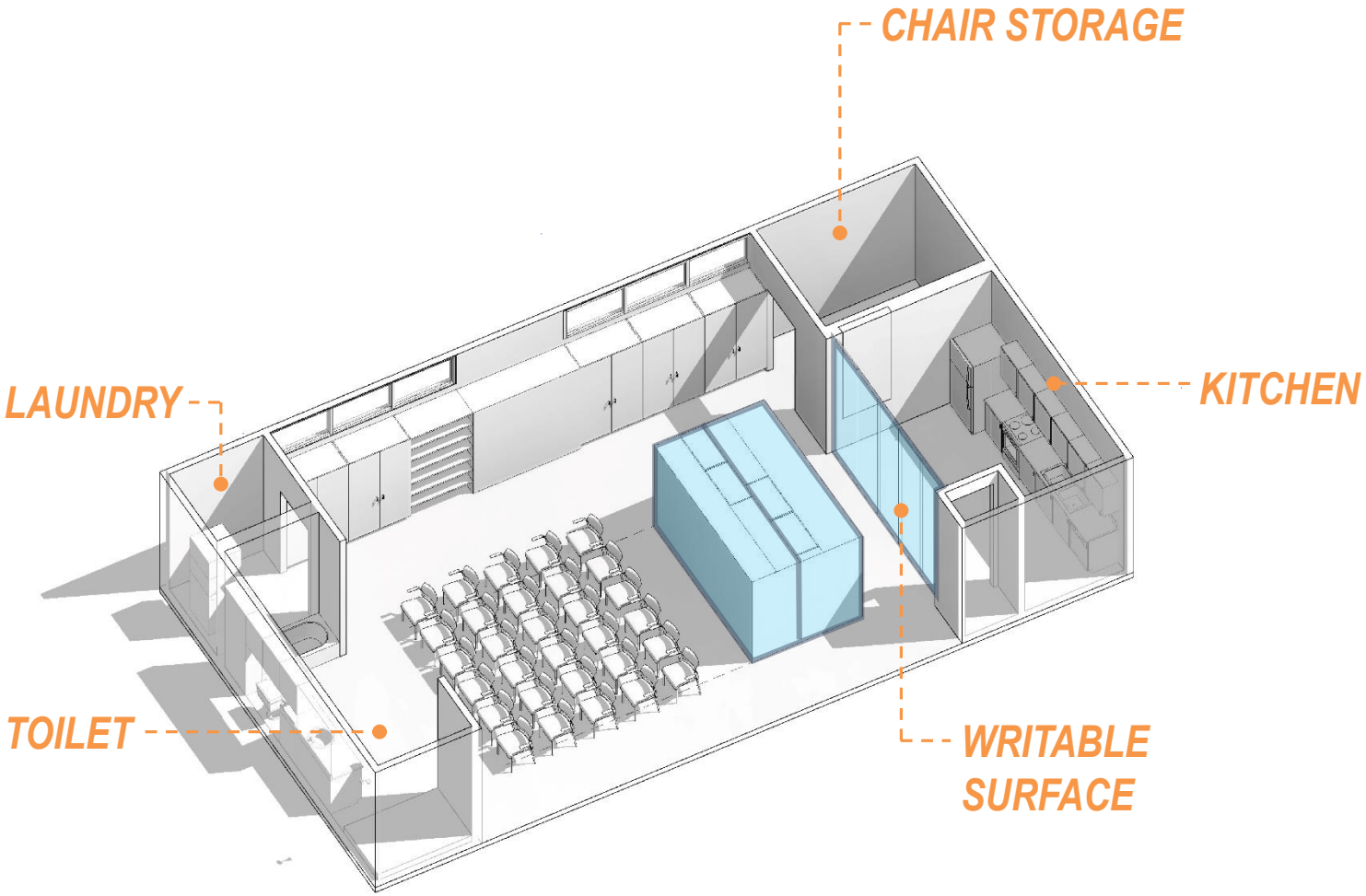

LEARNER OBSERVATION 286 SF 200 SF
IPE DEBRIEF ROOM 724 SF 320 SF
SERVER ROOM 170 SF 200 SF
CENTRAL STORAGE
ASSESSMENT LAB 1,979 SF 2,000 SF
CENTRALIZED STORAGE 1,271 SF 1,300 SF
LEARNER OBSERVATION 267 SF 200 SF
ASSESSMENT LAB 1,851 SF 2,000 SF
DEBRIEF ROOM 254 SF 200 SF
DEBRIEF ROOM 261 SF 200 SF
IPE DEBRIEF ROOM 252 SF 320 SF
OPEN SEATING 168 SF 100 SF
STAIR 2 264 SF 7
FACULTY OBSERVATION MONITORING 484 SF 500 SF
FACULTY PERCH 254 SF 250 SF
STORAGE / STAGING 252 SF 250 SF
SECONDARY SP ORIENTATION / LOUNGE 252 SF 250 SF
PRIMARY SP ORIENTATION / LOUNGE 495 SF 500 SF
VOICING CONTROL ROOM 602 SF 400 SF
FACULTY OBSERVATION 1402 SF 600 SF
INPATIENT SIM ROOM 168 SF 150 SF
INPATIENT SIM ROOM 154 SF 150 SF
INPATIENT SIM ROOM 177 SF 150 SF
INPATIENT SIM ROOM 155 SF 150 SF
INPATIENT SIM ROOM 306 SF 150 SF
INPATIENT SIM ROOM 162 SF 150 SF
STUDENT OBSERVATION 410 SF 400 SF
MULTIMEDIA 241 SF 252 SF
SERVER ROOM 220 SF 200 SF
CONTROL PROCTOR STATIONS 359 SF 240 SF
TOILET 106 SF 100 SF
HOSPITAL SIM 329 SF 300 SF
TEAM STATION 291 SF 400 SF
ASSESSMENT LAB 2,005 SF 2,000 SF
STORAGE / STAGING 468 SF 1,200 SF
CENTRALIZED STORAGE 322 SF 300 SF
FLEX SIM ROOM (OR) 449 SF 400 SF
IPE DEBRIEF ROOM 337 SF 320 SF
IPE DEBRIEF ROOM 340 SF 320 SF
STORAGE / STAGING 377 SF 1,200 SF
OPEN SEATING 108 SF 100 SF
SP EXAM ROOM (LG) 162 SF 160 SF
SP EXAM ROOM (STANDARD) 140 SF 140 SF
SP TOILET/ SHOWER 113 SF 60 SF
SP EXAM ROOM (STANDARD) 140 SF 140 SF
LEARNER CIRCULATION 1,090 SF 0 SF
WRITE-UP/OBSERVATION 284 SF 0 SF
SP CHANGING 49 SF 40 SF
SP TOILETS 61 SF 60 SF
SP CORRIDOR 349 SF 0 SF
TF 103 SF 100 SF
JC 212 SF 100 SF
IT 121 SF 100 SF
MEN 393 SF 0 SF
WOMEN 417 SF 0 SF
LEARNER LANDING 516 SF 0 SF
WRITE-UP/OBSERVATION 264 SF 0 SF
PRACTICE LAB 1,536 SF 1,500 SF
ANATOMY 901 SF 640 SF
VR / EMERGING TECHNOLOGY 1,479 SF 1,600 SF
VR / EMERGING TECHNOLOGY CONTROL/STORAGE 345 SF 0 SF
ELEVATOR 99 SF 7
ELEVATOR 174 SF 7
SHAFT 65 SF 0
OPEN SEATING 139 SF 100 SF
MODEL LIVING STORAGE 295 SF 0 SF
MODEL LIVING SUITE 1,199 SF 1,200 SF
COLLAB PRACTICE LAB 1,383 SF 1,600 SF
CONSULT ROOM 113 SF 120 SF
TOILE
KITCHEN
48'-0"


SKILLS LABS
SIM HOSPITAL
STANDARDIZED PATIENT SUITE
VR STUDIO
VIRTUAL ANATOMY
HOME SUITE
COLLAB LAB

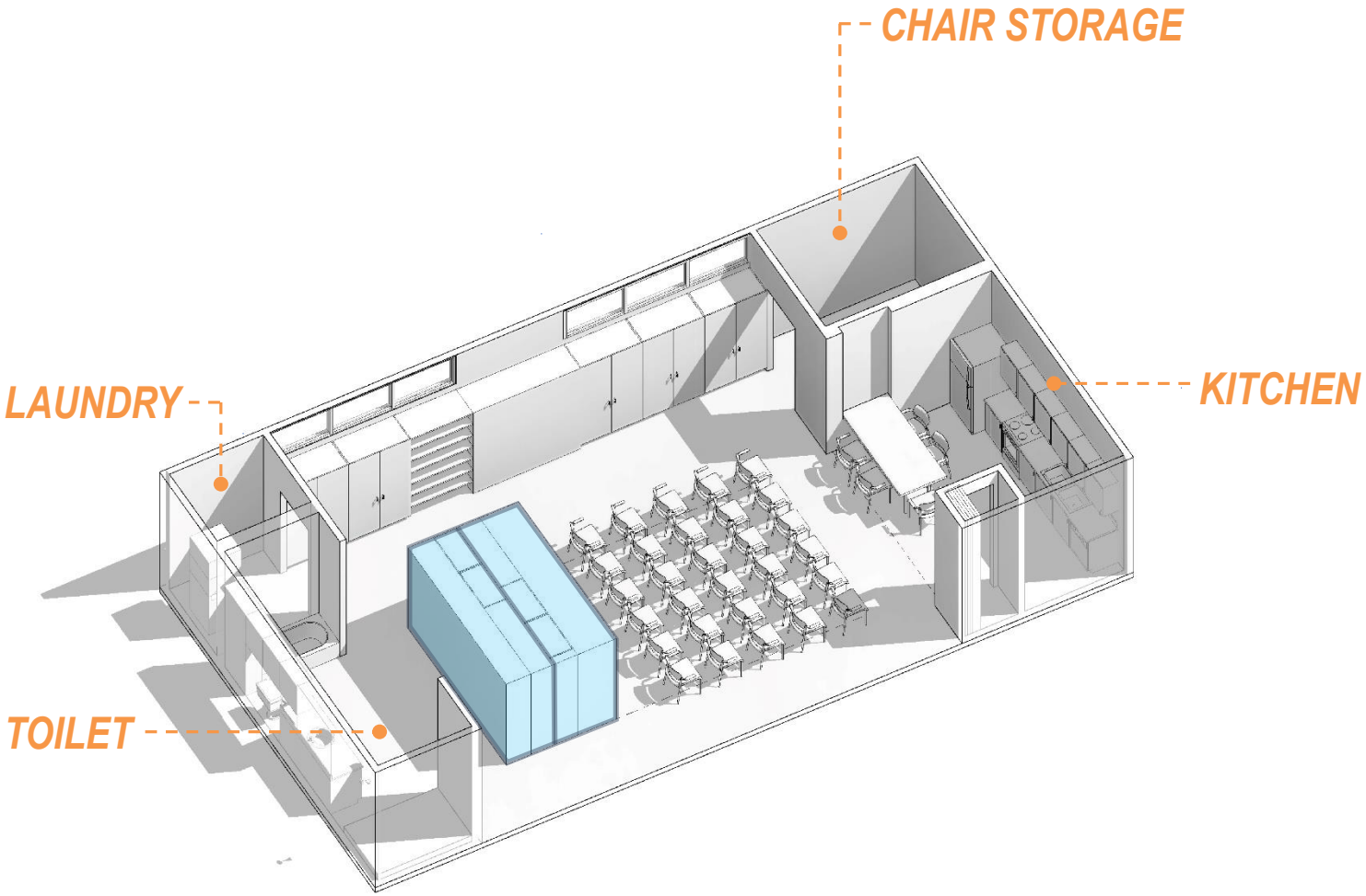
Grand Valley State University



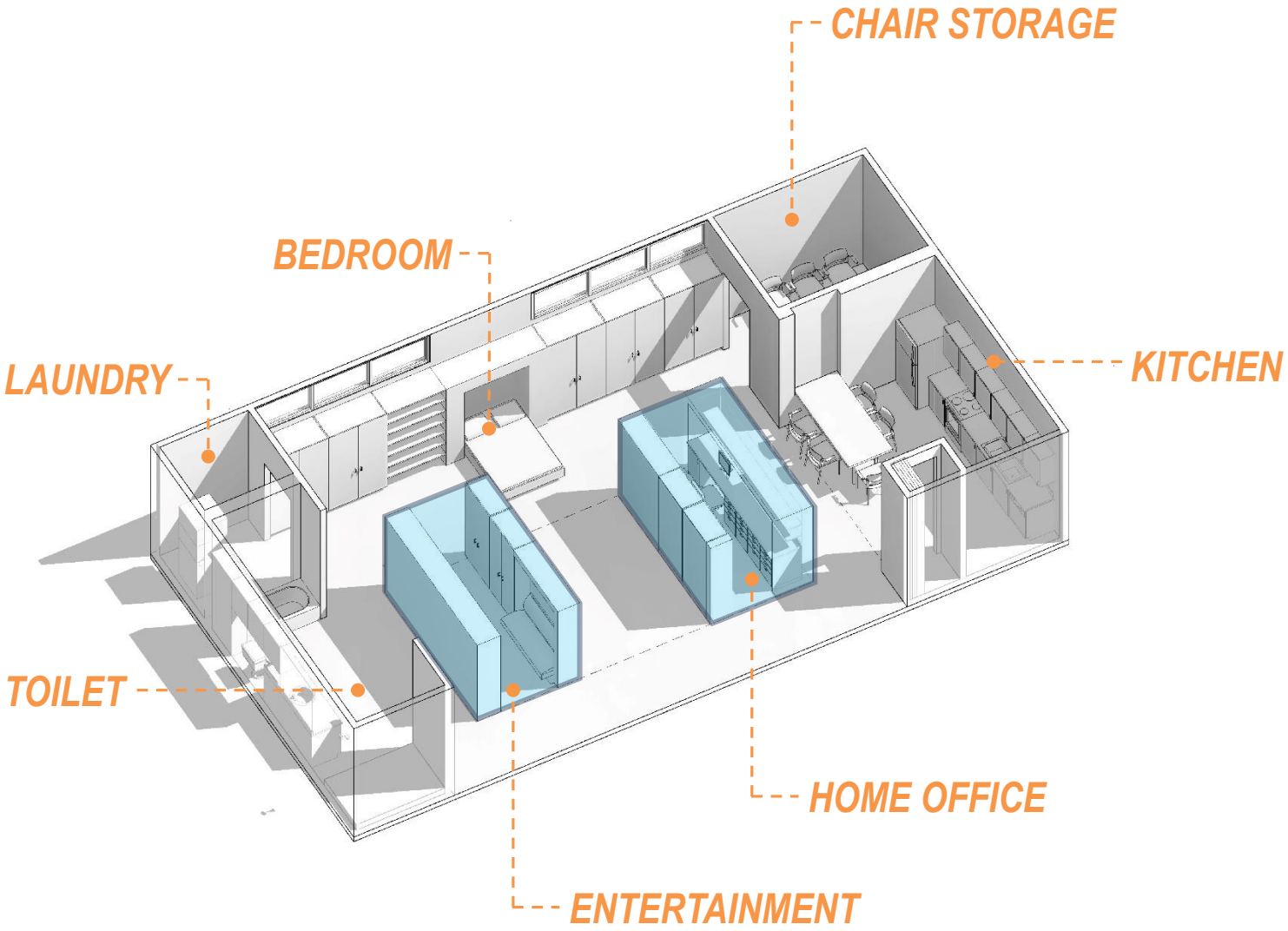
MODEL LIVING SUITE



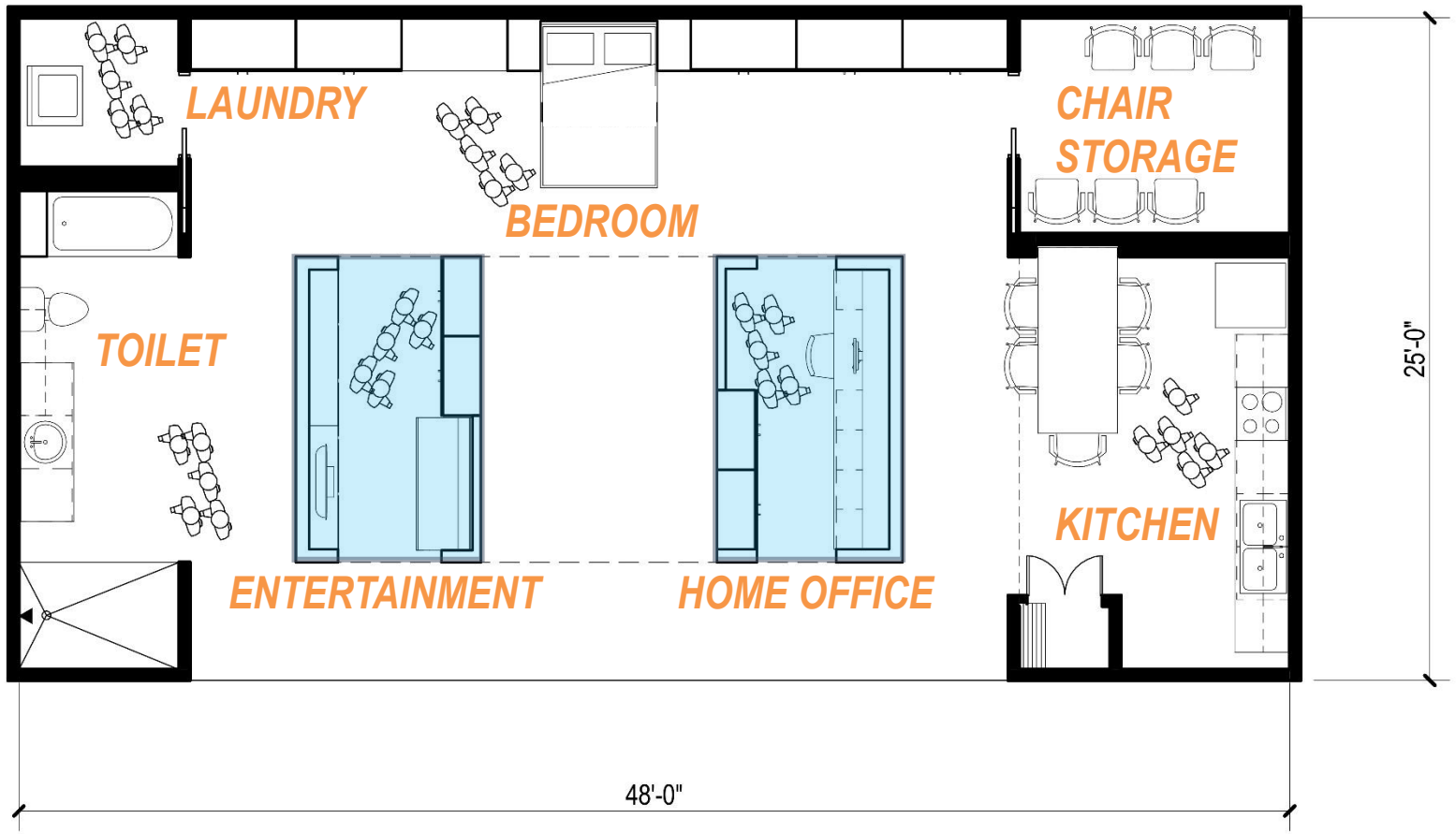
MODEL LIVING SUITE



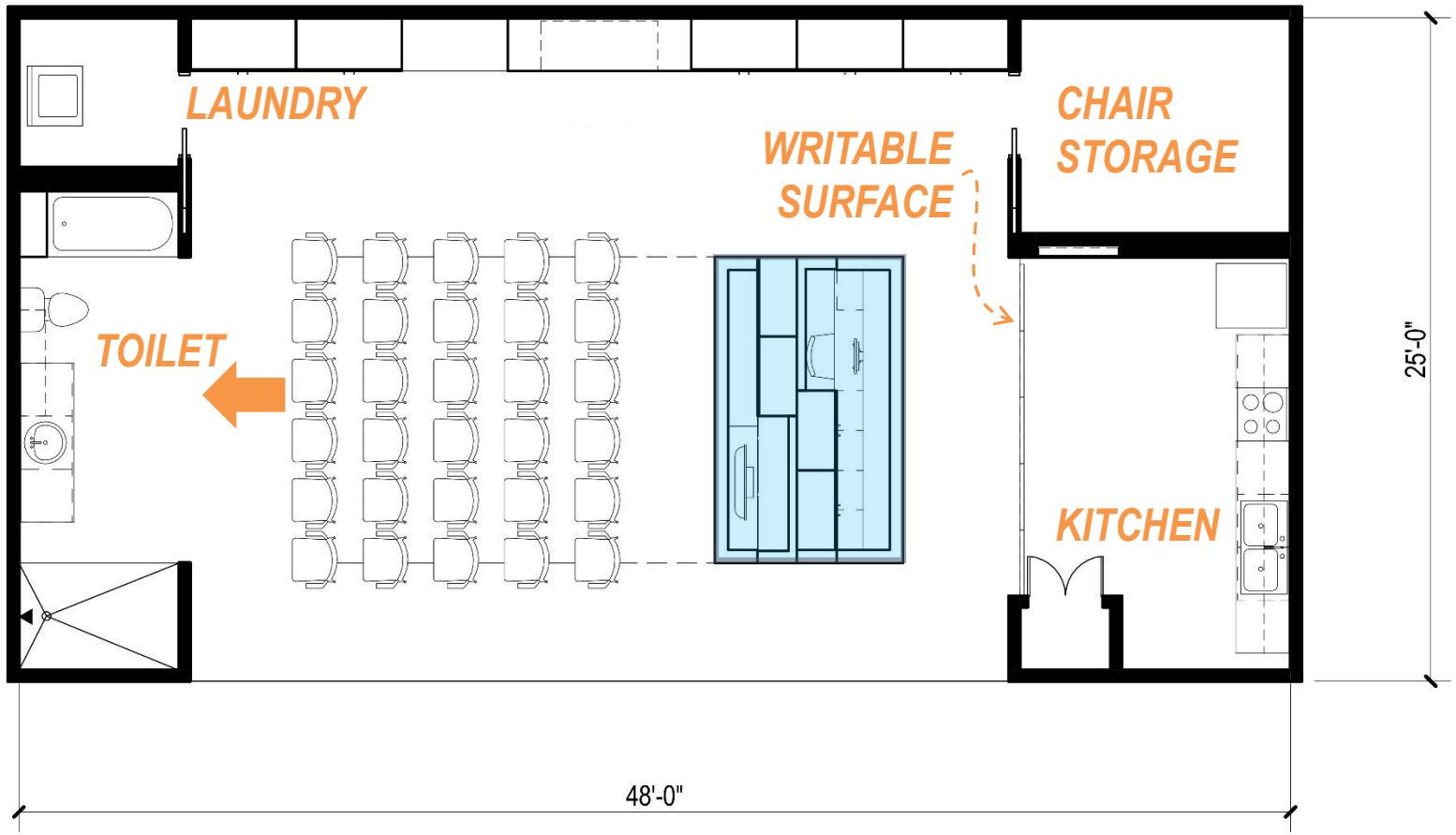
MODEL LIVING SUITE



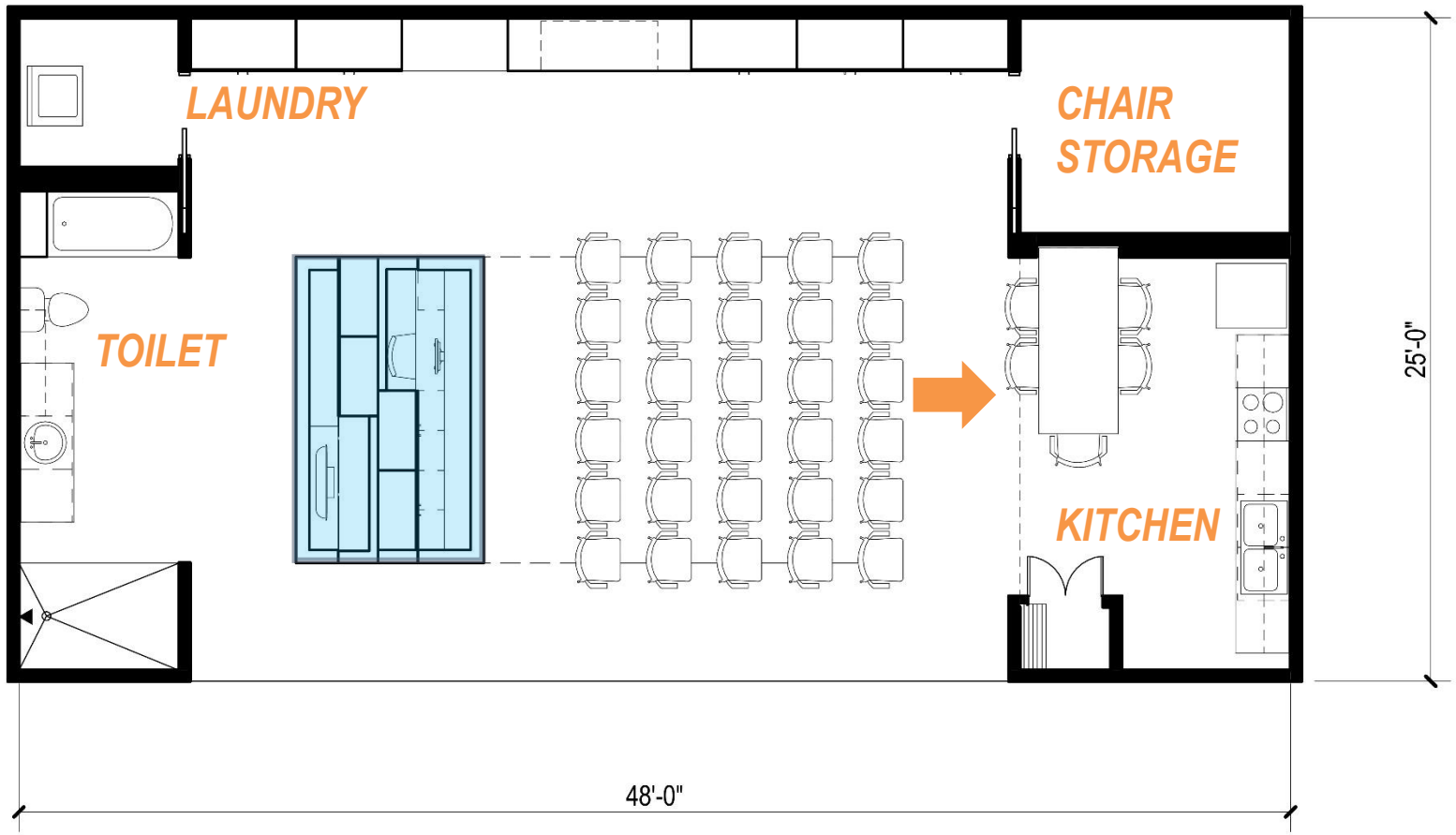
MODEL LIVING SUITE



MODEL LIVING SUITE



MODEL LIVING SUITE



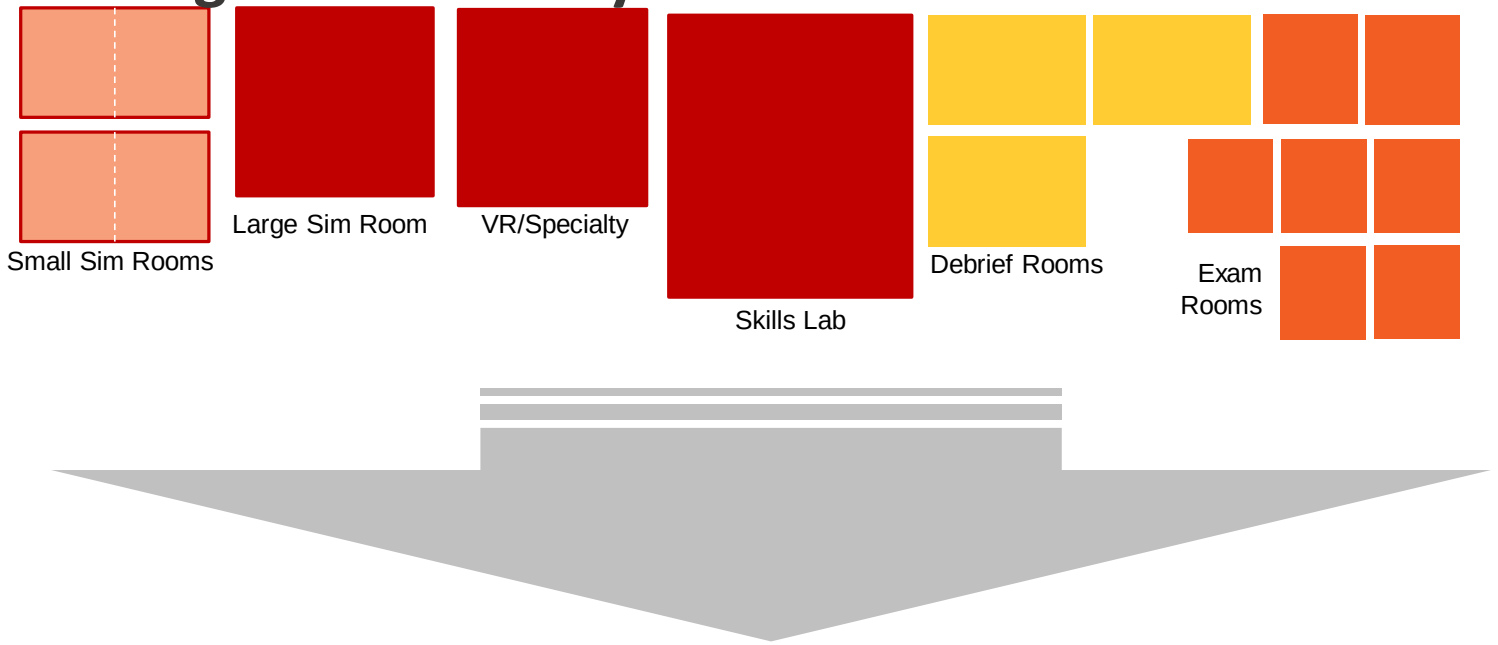
MODEL LIVING SUITE

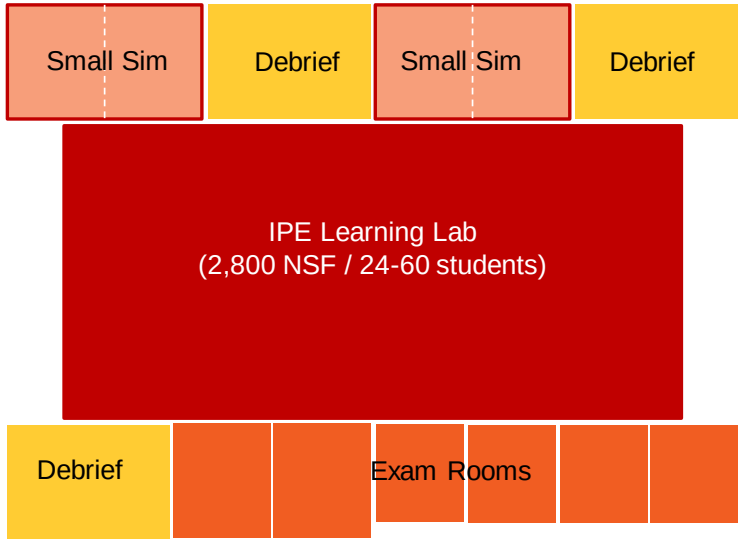
University of Minnesota Duluth College of Pharmacy & School of Medicine

Duluth, Minnesota

Recommended for UMD:

Sim Studio Concept: The simulation studio concept is a developing trend to enhance the flexibility and scalability of immersive learning environments. If the proposed space program can be co-located there are opportunities for enhanced flexibility and economy of space that could result in enhanced outcomes and significant savings.





UNIVERSITY OF ILLINOIS CHICAGO

UNIVERSITY OF ILLINOIS CHICAGO


THE UNIVERSITY OF ILLINOIS
COLLEGE OF MEDICINE
SIMULATION AID INTEGRATIVE
LEARNING INSTITUTE
GRAND OPENING


Basic Life Support (BLS)
Advanced Cardiovascular Life Support (ACLS)
Please
No Food or Beverage
Beyond this Point
Thank You


EXIT
4033A
EXAM 1


EXIT
4023A
EXAM 1

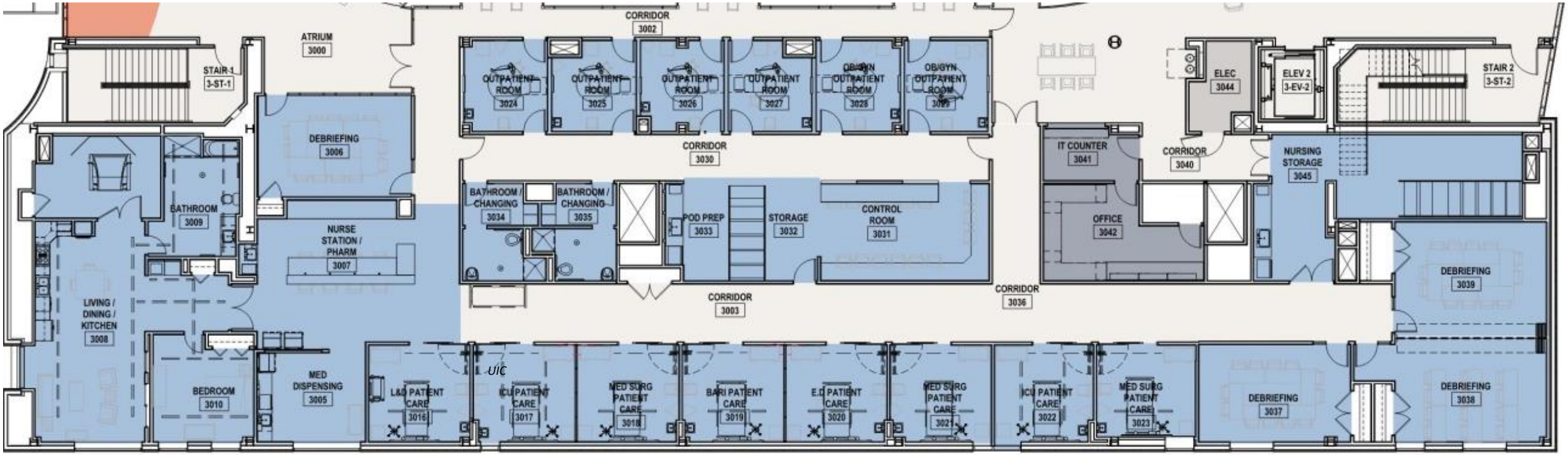

Ritter
by MIDMARK
204

DUKE

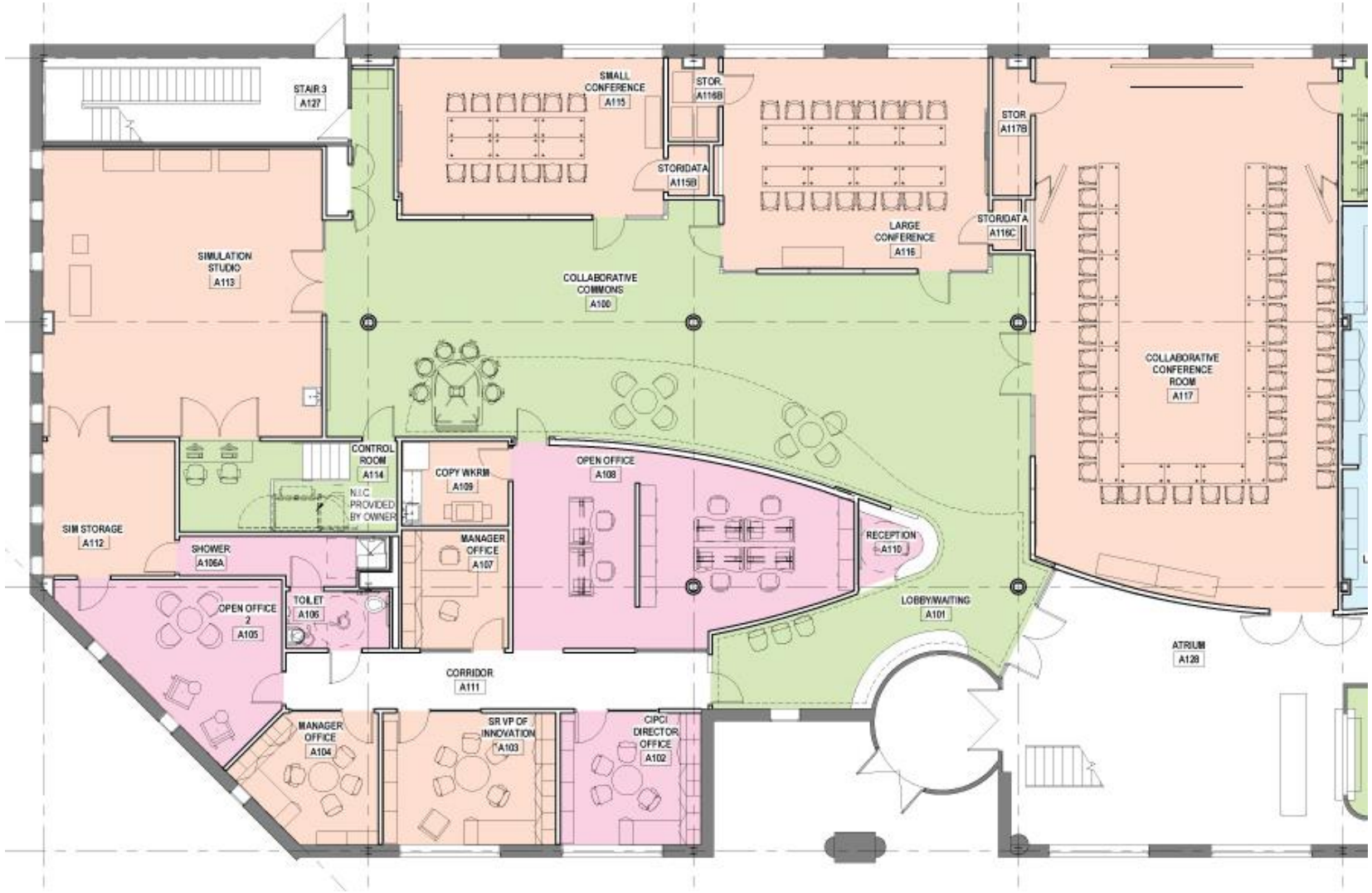

SERVICE ELEVATOR 5003ELV
ELEC 5078ER
A/V 5078
STAIR NO. 2 5002STW
TANK STORAGE 5077
SP CHANGING 5078B
SP CHANGING 5078A
SP TRAINING/ DEBRIEFING 1 5078
SERVING COUNTER 5074
SP WAITING 5079
CORRIDOR 5003COR
SIMULATION STORAGE 5025
EXAM ROOM 5036
EXAM ROOM 5035
EXAM ROOM 5034
EXAM ROOM 5033
EXAM ROOM 5032
STUDENT WRITE-UP 5031
CONTROL ROOM 5045
A/V ROOM 5027
STUDENT WAITING/T.DOWN 5021
EXAM ROOM 5042
EXAM ROOM 5041
EXAM ROOM 5038
EXAM ROOM 5037
STAFF 5058
CORRIDOR 5003COR
CONTROL ROOM 5055
SIMULATION ICU 5054
SIMULATION PROCEDURE 5053
SIMULATION OR 5051
DEBRIEFING 5057
SEAL TASK TRAINER 5056
DEBRIEFING 5020
SCHED. / FAC. / MGR. 5019
SKILL COORD. OFFICE 5018
RESEARCH OFF. VISIT. FACULTY 5017
PROGRAM COORDINATOR 5016
ADMIN. ASST. 5010
DIR. OF HUMAN SIMULATION 5015
STAFF 5012
STAFF 5013
STAFF 5014
WORK ROOM 5009
STOR 5001
ELEC 5002ER
ELEV NO. 1 5001ELV
ELEV NO. 2 5002ELV
ELEV LOBBY 5000V
STOR 5003
CORRIDOR 5000COR
STAIR NO. 1 5001STW
IDF 5004TC
J.C. 5005
WOMEN'S TOILET 5006TOILET
MEN'S TOILET 5007TOILET

ARMSTRONG STATE

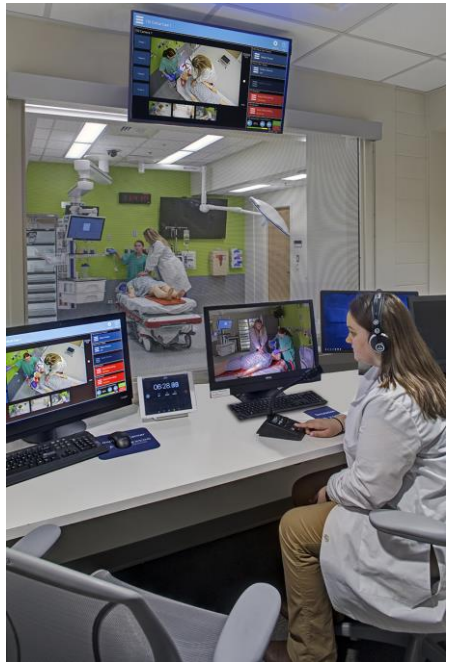
SACRED HEART



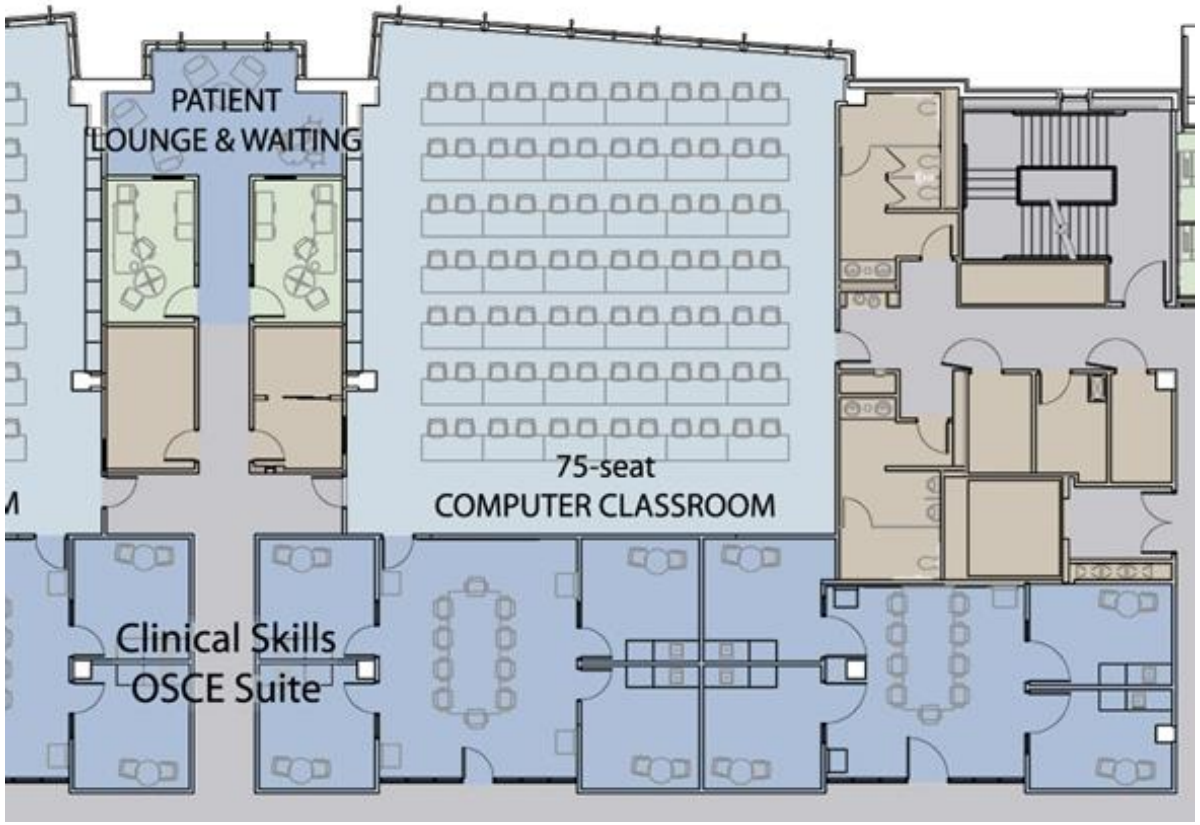
ST. FRANCIS


STAIR 3
A127
SMALL CONFERENCE
A115
STOR.
A116B
STORIDATA
A115B
STOR.
A117B
STORIDATA
A116C
LARGE CONFERENCE
A116
SIMULATION STUDIO
A113
COLLABORATIVE COMMONS
A100
COLLABORATIVE CONFERENCE ROOM
A117
CONTROL ROOM
A114
N.I.C. PROVIDED BY OWNER
COPY WKRM
A109
OPEN OFFICE
A108
SIM STORAGE
A112
SHOWER
A106A
MANAGER OFFICE
A107
RECEPTION
A110
OPEN OFFICE 2
A105
TOILET
A106
LOBBY/WAITING
A101
ATRIUM
A128
CORRIDOR
A111
MANAGER OFFICE
A104
SR VP OF INNOVATION
A103
CIPCI DIRECTOR OFFICE
A102

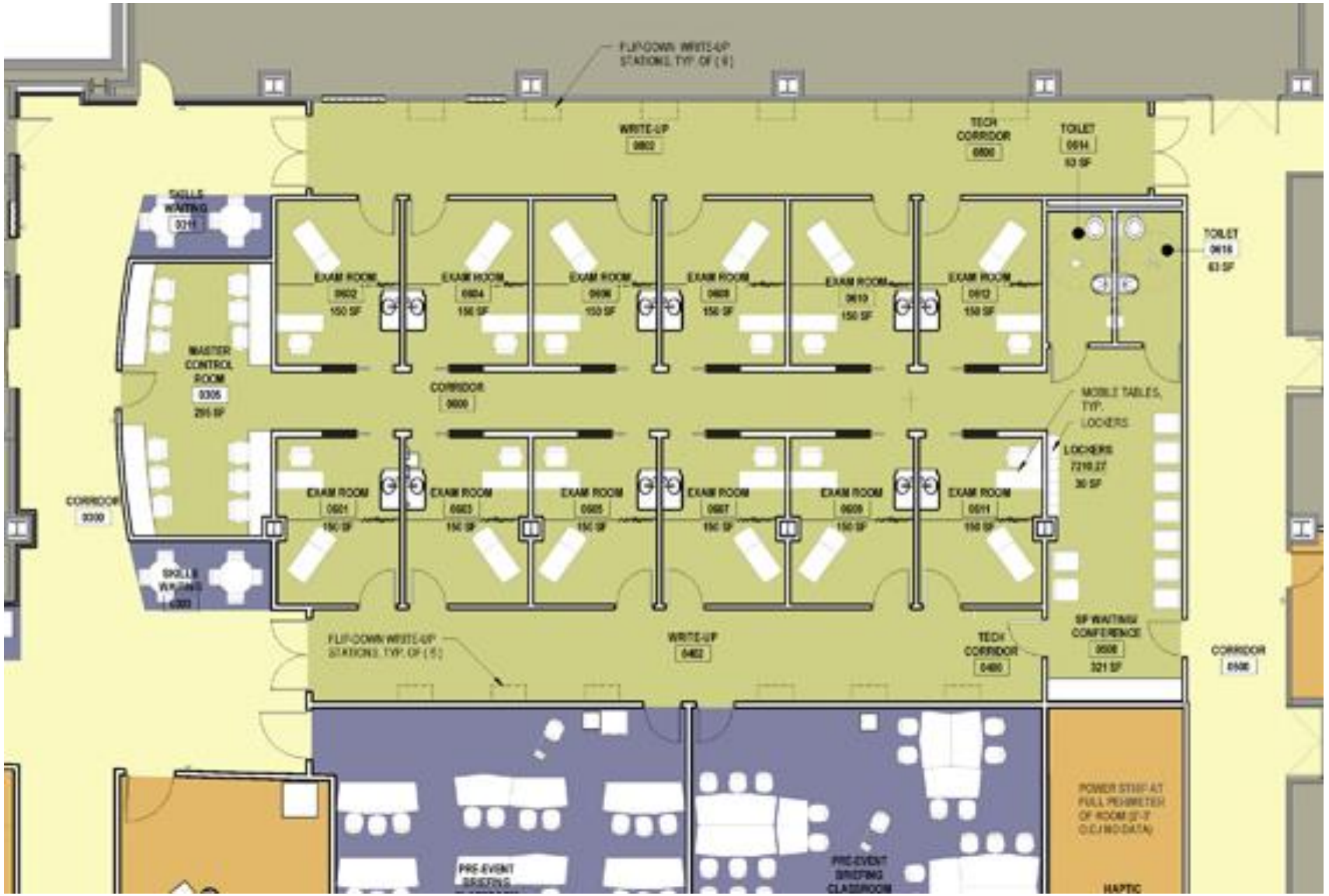
JOHNS HOPKINS



EMORY

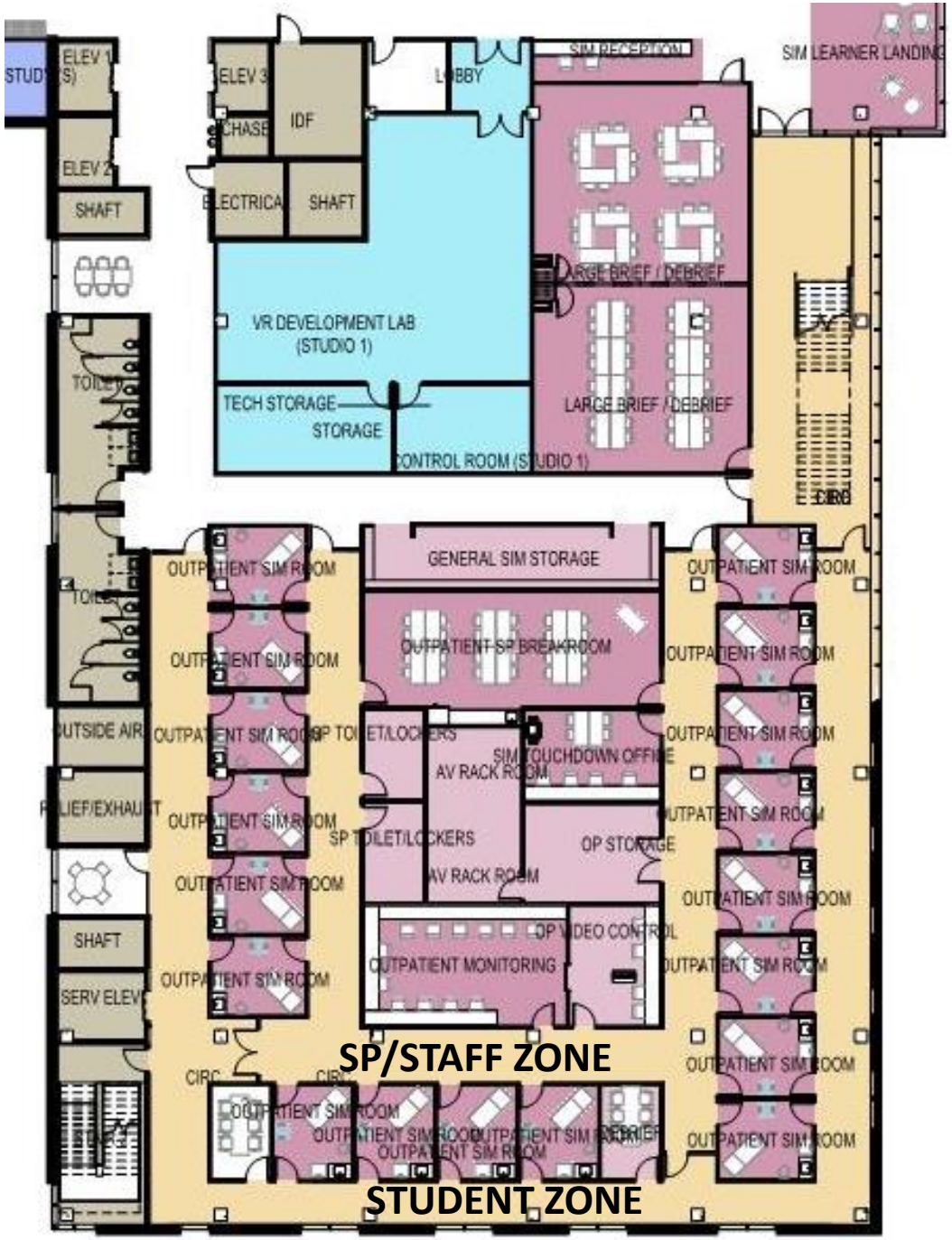

PATIENT
LOUNGE & WAITING
75-seat
COMPUTER CLASSROOM
Clinical Skills
OSCE Suite

WMU

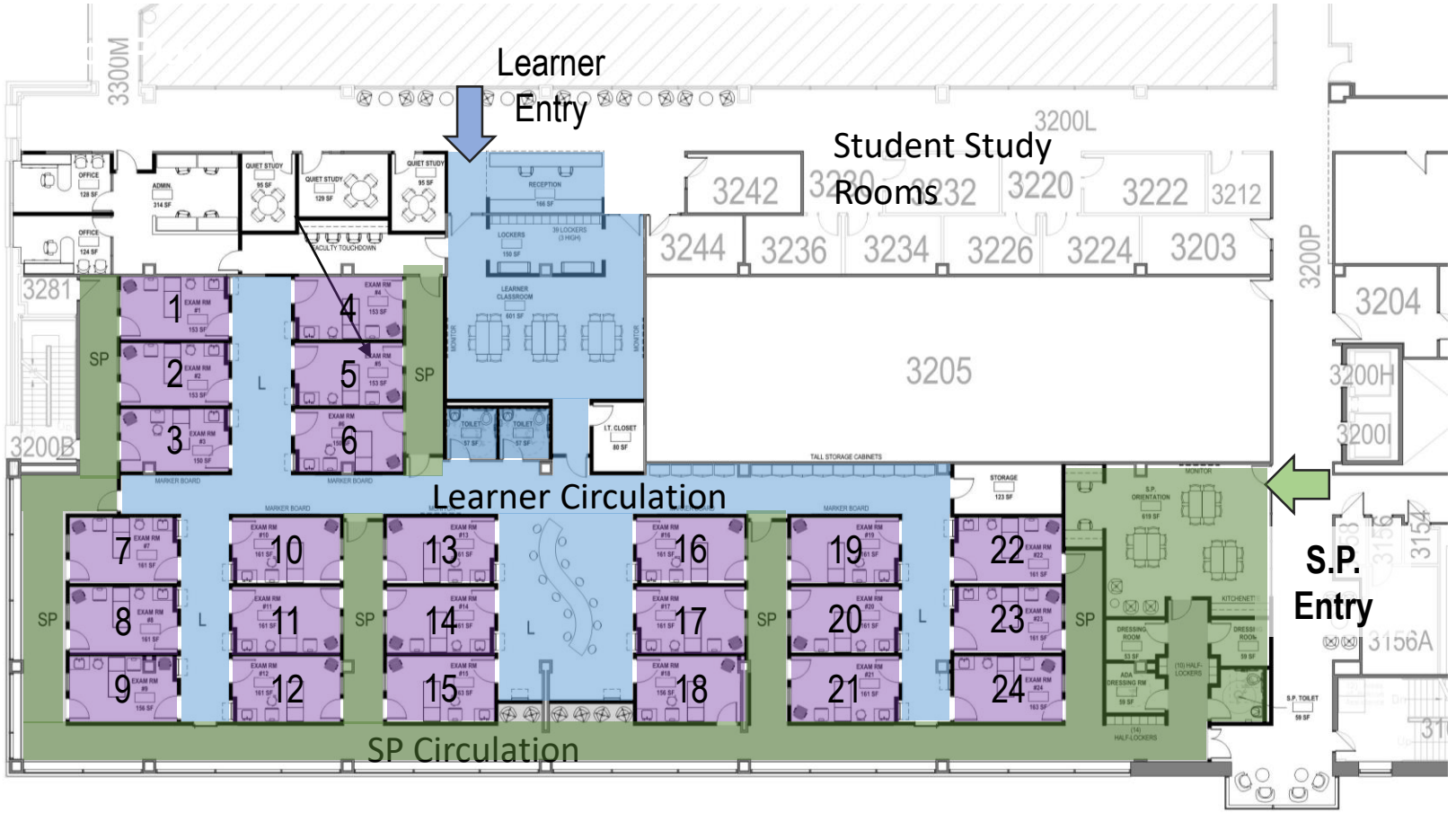

FLIP-DOWN WRITE-UP STATIONS, TYP. OF (6)
WRITE-UP
TECH CORRIDOR
TOILET
SKILLS WAITING
EXAM ROOM
MASTER CONTROL ROOM
CORRIDOR
MOBILE TABLES, TYP.
LOCKERS
SP WAITING/ CONFERENCE
PRE-EVENT BRIEFING CLASSROOM
POWER STRIP AT FULL PERIMETER OF ROOM (F.F. O.C.I.W.O.DATA)
HAPTIC

UT Austin Dell Medical School

University of Minnesota



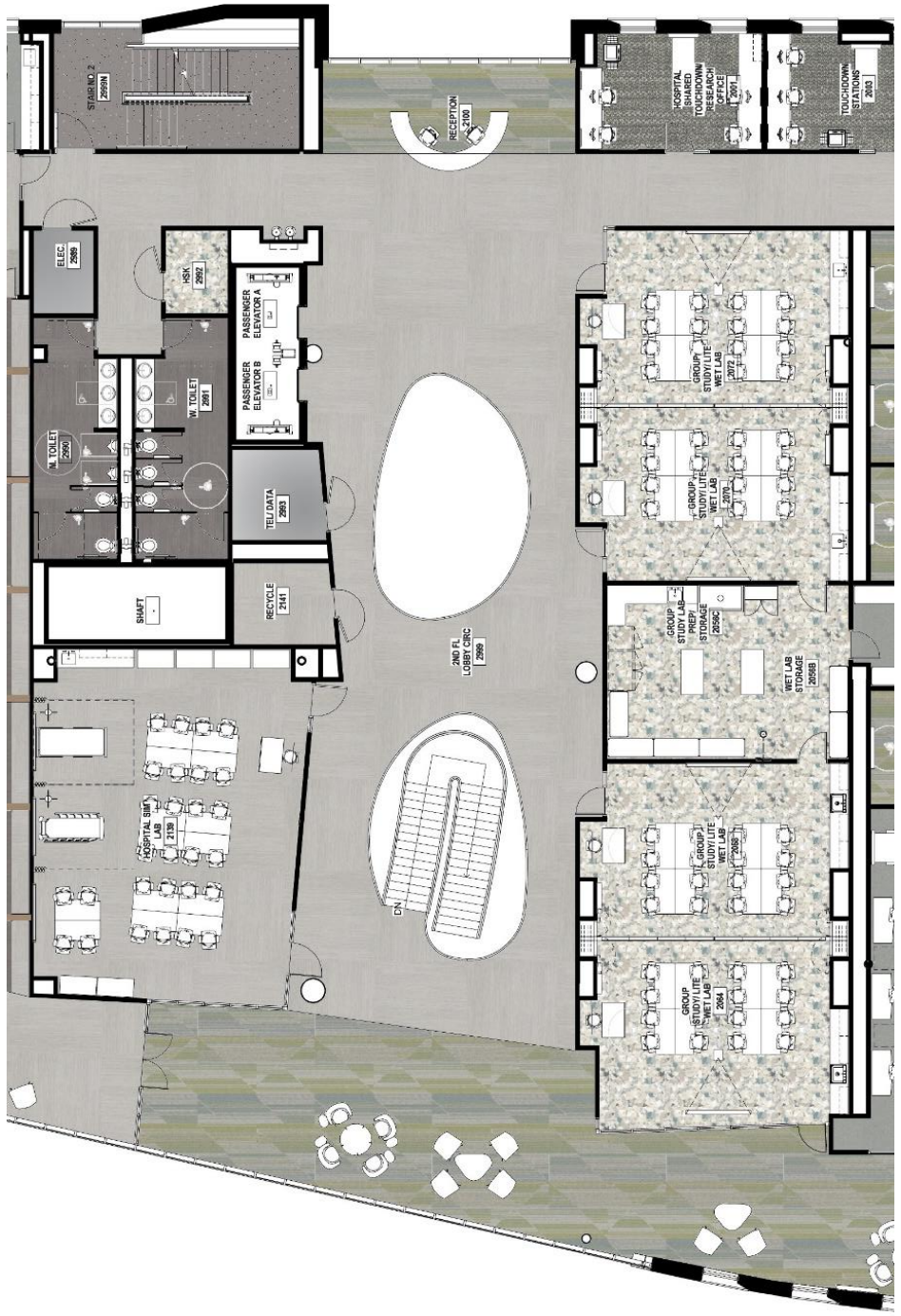
University of Wisconsin



UT Austin Dell Medical School

Western Michigan

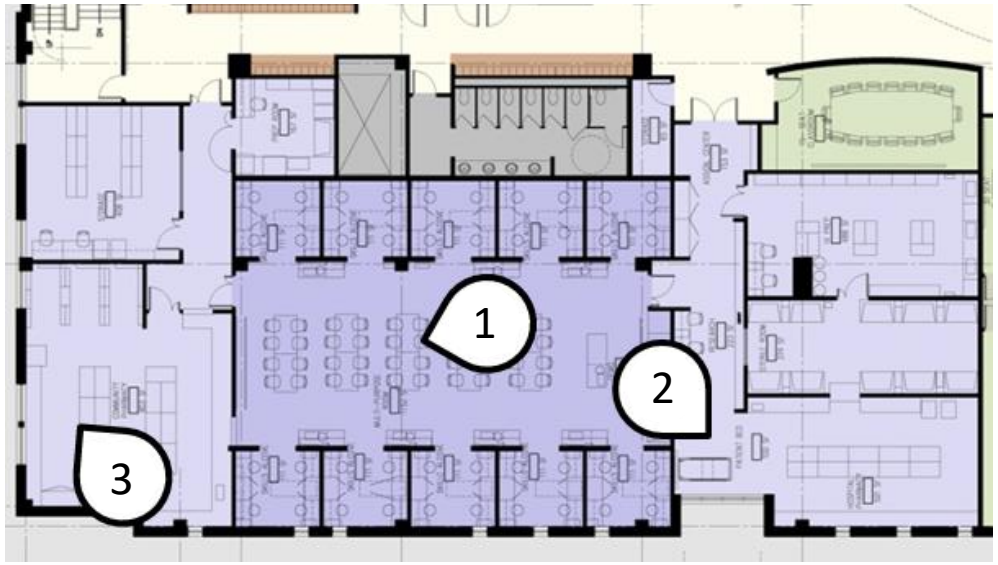
Indiana University



Sacred Heart

Pharmacy Care Centers

- **Demonstration & Skills Lab Space**
  - Large, flexible area for didactic learning & skills practice
- **Consult Space**
  - For standardized patient training
- **Compounding Space**
  - Bench space for chemical compounding. At UGA, was combined with consult space
- **Hospital Pharmacy**
  - To familiarize students with the sequence and process of operating in a hospital pharmacy
- **Observation**
  - Cameras, microphones, and data collection software allow faculty and students to observe individual performances



- *(10) 4-student alcoves for compounding and patient exam/counseling*

3. Community Pharmacy
- 10 students

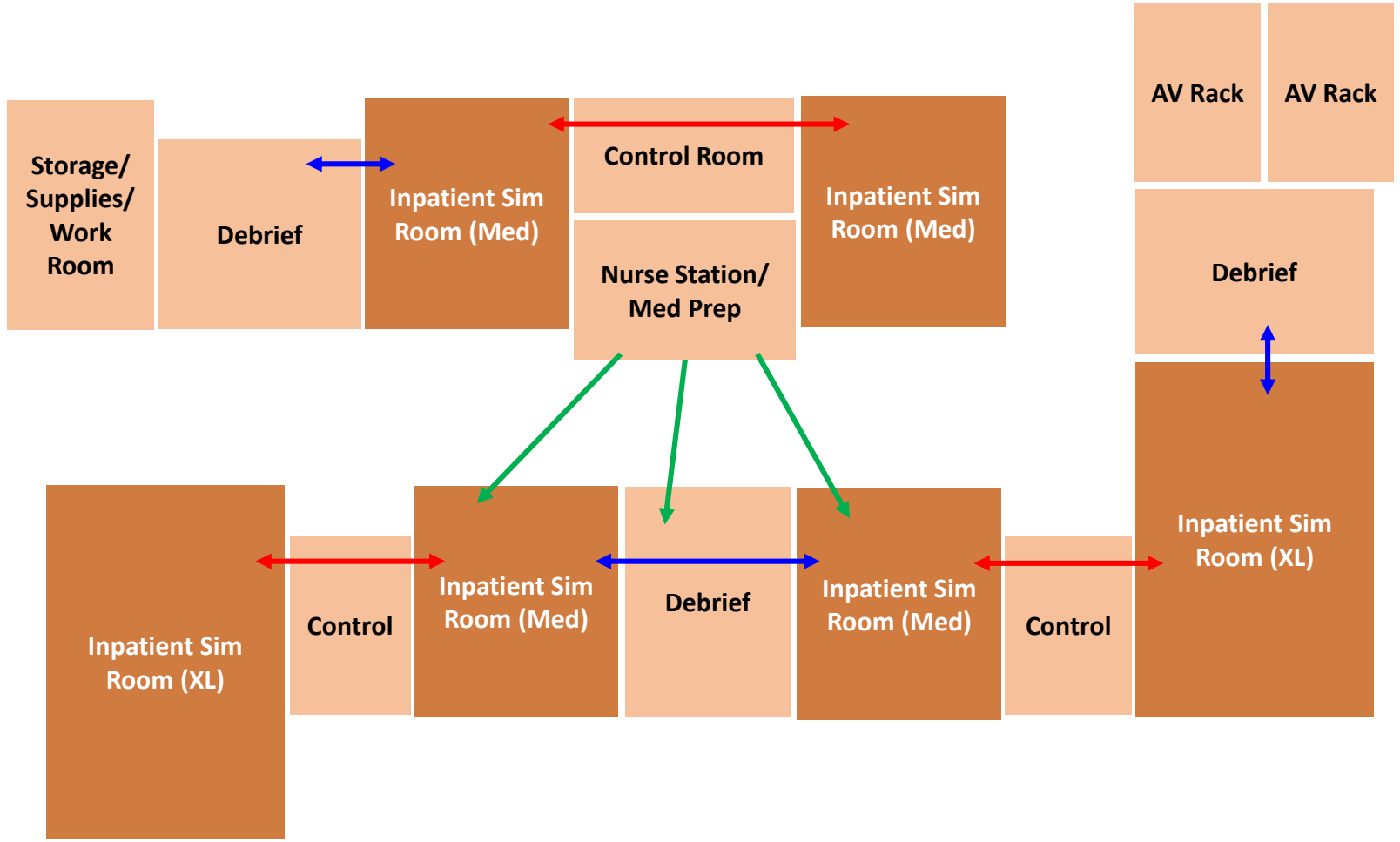
2. Hospital Pharmacy
- 20 students

1. Demonstration & Lab
- 40 students

Inpatient Simulation

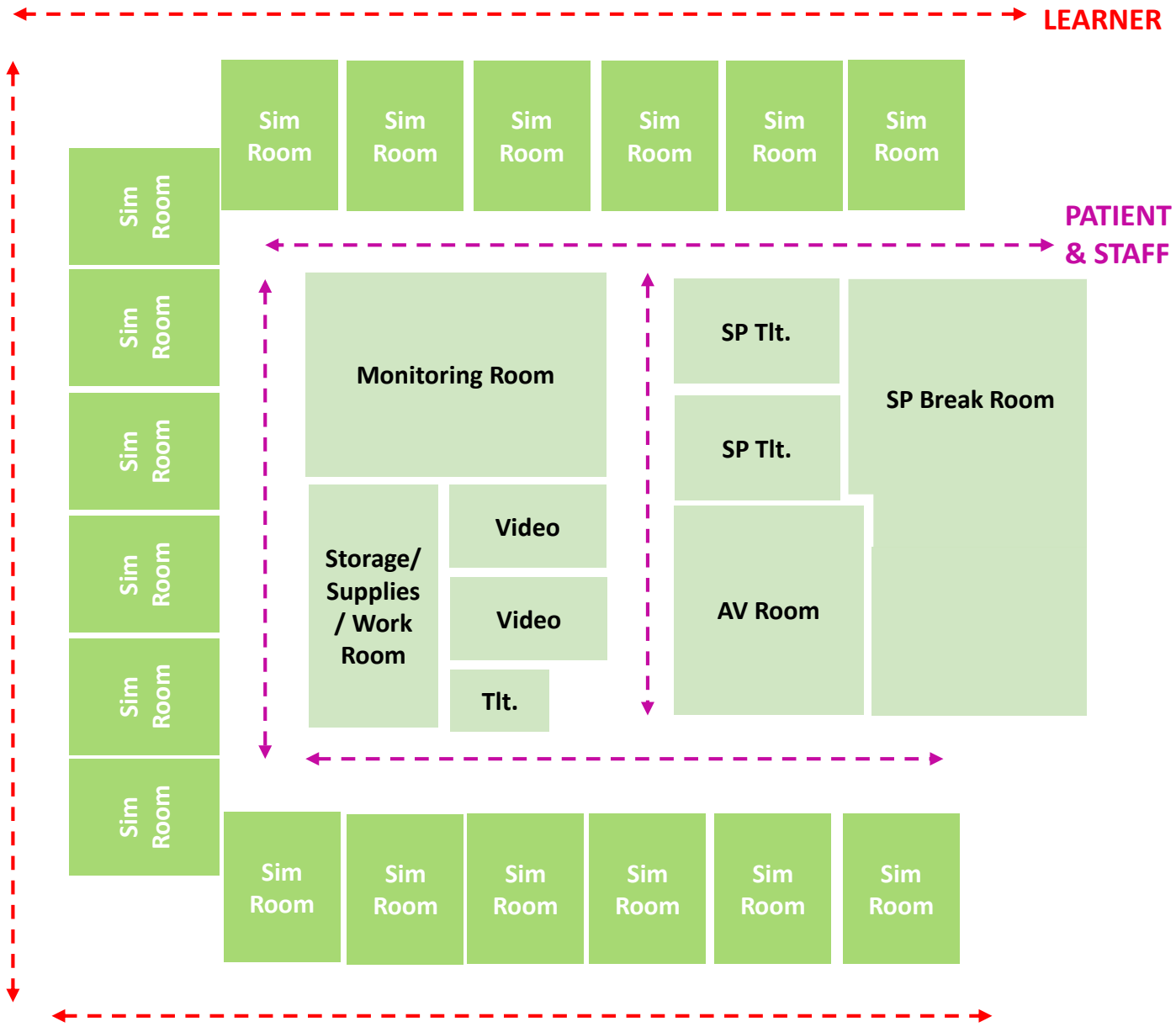
Design depends on the specific needs of the program.

- ***Immersive Space***
  - Medium (250sf) and Large (500sf) Hospital Rooms - can include general medsurg rooms, trauma, ICU, LDR, OR, etc. *Flexibility is key.*
  - Some suites call for a nurse station, med prep, linens, alcoves for stretchers and crash carts, anteroom, toilet room, etc.
- ***Debrief Rooms***
  - Ideally 1:1 ratio with sim rooms, not usually possible.
  - Can be a place for direct observation if adjacencies allow
- ***Staff & Support***
  - Control Rooms (Centralized vs. Decentralized)
  - Storage/Staging/Supply (Target 25% of NSF)
  - SP Prep Space including toilet/changing room



Outpatient Simulation

- ***Exam Rooms***
  - 130-140 NSF
  - Shared or Separate Access
  - Write-up station outside each room
  - High-stakes vs. Low-stakes
- ***Staff Support Space***
  - Faculty Observation/Monitoring
  - Control Room
  - Storage (target 10% of total NSF of suite)
- ***Standardized Patient Support Space***
  - Orientation/Training Room/Lounge
  - Lockers & Changing, Toilet Rooms



Procedural Skills

- Large flexible wet/dry space
- Skills and Assessment Labs
- Dedicated “Just-In-Time” skills lab, technology trainers
- Storage required to provide flexibility