



**NOT YOUR  
TYPICAL  
CLASSROOM:**  
modalities in  
medical  
education



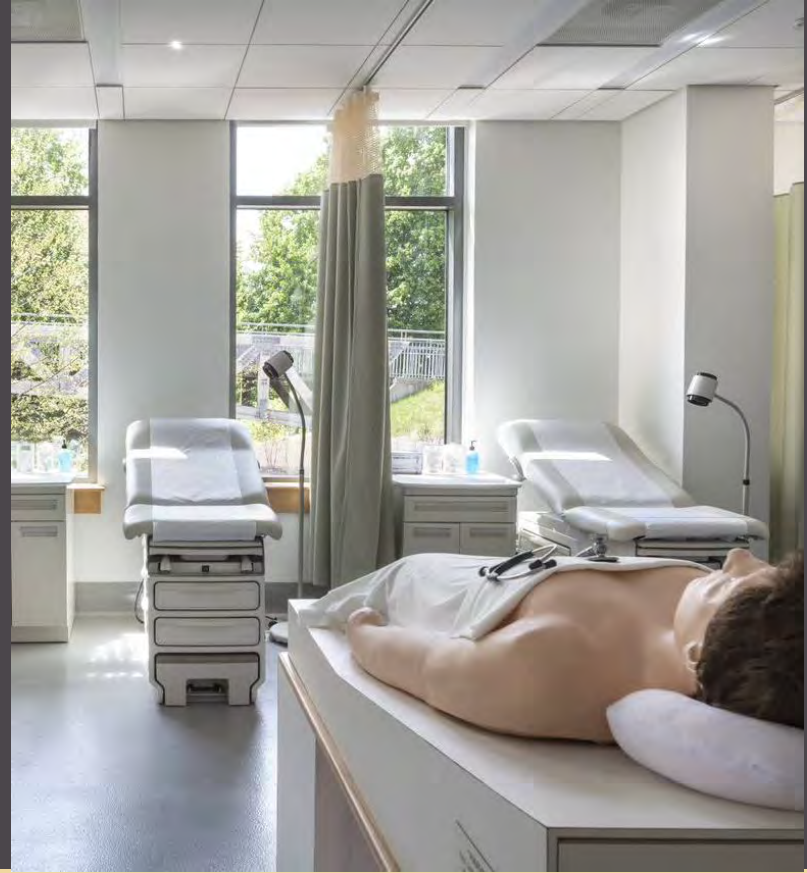
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Lakeland  
COMMUNITY COLLEGE

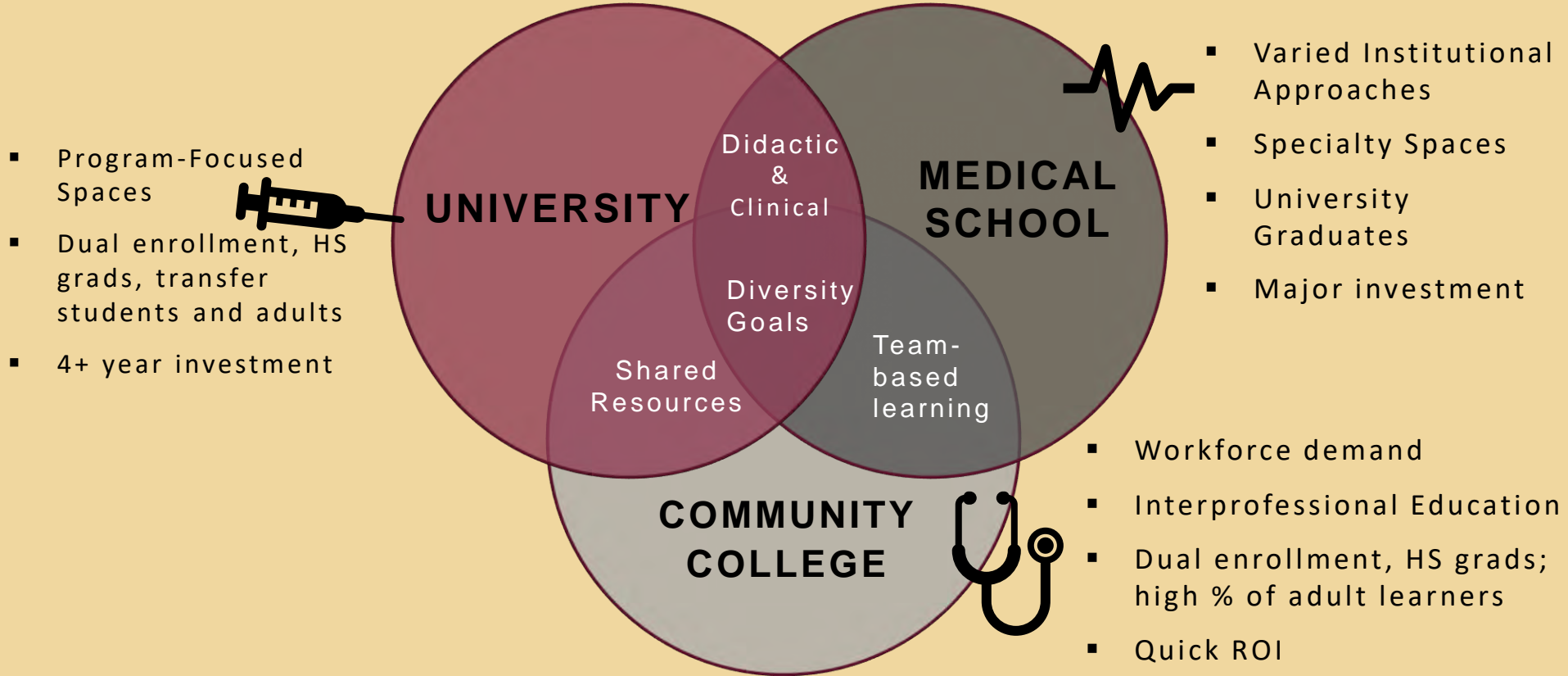
**HERA** laboratory planners

# LEARNING OUTCOMES

1. Define how allied health **pedagogy is changing** and how it is being implemented in colleges and universities around the country.
2. Evaluate how technology and various **modalities shape the medical education laboratories.**
3. Evaluate allied health space options through an introduction of **past trends and future drivers.**
4. Assess strategies for improved flexibility and adaptability as a means of “**future-proofing**” allied health facilities.



# MEDICAL EDUCATION DELIVERY MODELS



# POLL

Presentation Participants:

Community Colleges?

Universities?

Medical Schools?



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# CASE STUDY



# PEDAGOGICAL APPROACH

- Healthcare continuum
- Transforming Campus
- Team-based healthcare education
- Informal Learning
- Practical Training



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# CURRENT PROGRAMS

- Biotechnology Science
- Dental Hygiene
- EMT/ Paramedic
- Health Information Man. Tech.
- Histotechnology
- Medical Assisting
- Medical Laboratory Technology
- Multi-Skilled Health Technology
- Nursing (RN)
- Phlebotomy
- Radiologic Technology
- Respiratory Therapy
- Surgical Technology

# NEW PROGRAMS

## Complete

- Administrative Medical Assistant
- Occupational Therapy Assistant
- Polysomnography
- Nursing Assistant
- Clinical Documentation (course)
- Bioinformatic
- Health Coach/Patient Navigator

## Fall 2019

- Central Sterilization

## Summer 2020

- Dental Assistant Summer

## Fall 2021

- Physical Therapist Assistant



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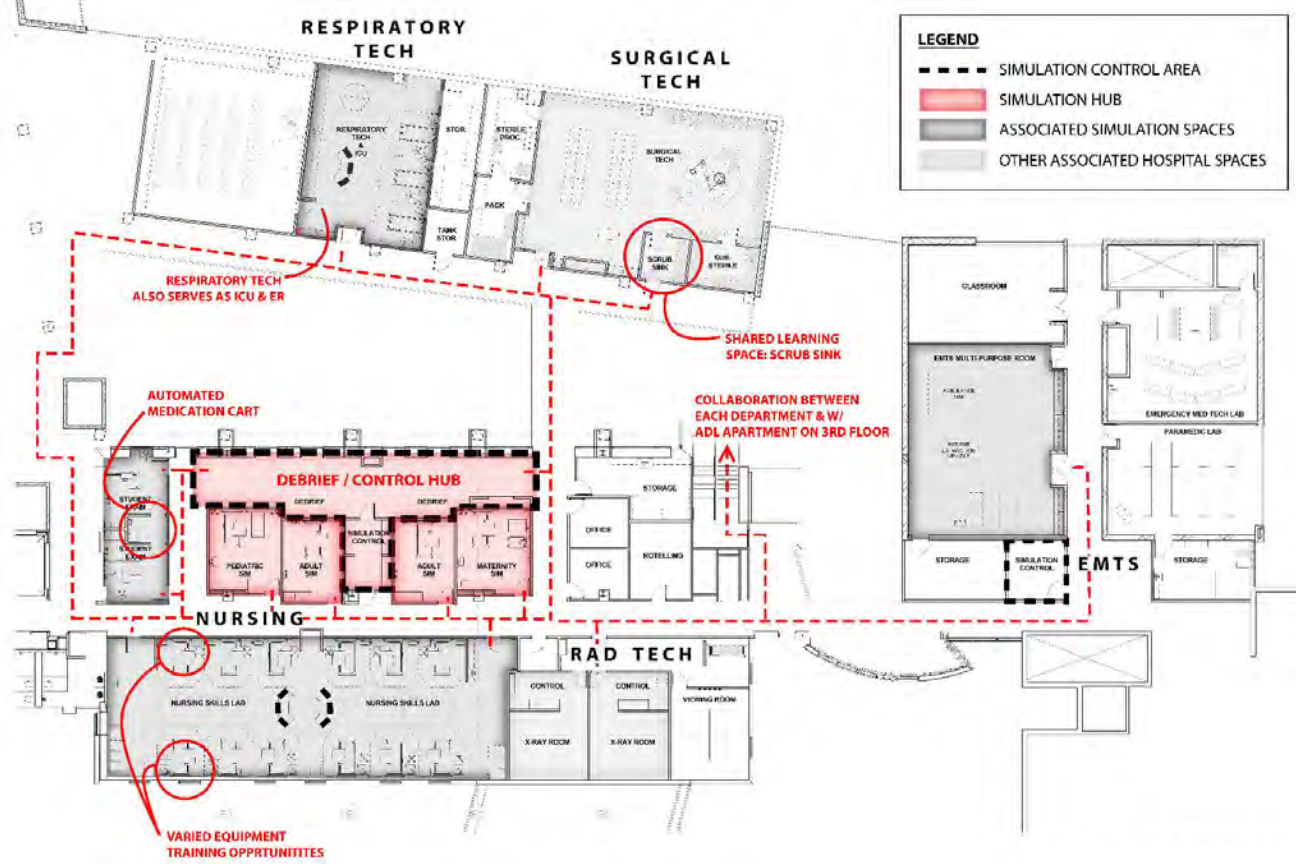
# POLL

Number of health programs on your campus?



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# MARRYING NEW AND RENOVATED SPACES



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# INTER-PROFESSIONAL EDUCATION (IPE) VIDEO

## Pre-hospital



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# CLASSROOMS





# CLASSROOMS



# LABORATORIES





# LABORATORIES



# LABORATORIES





# LEARNING LAB-NURSING



# LEARNING LAB-MEDICAL ASSISTING





# LEARNING LAB-RESPIRATORY





# LEARNING LAB-SURGICAL TECH



# LEARNING LAB-RADIOLOGY TECH





# LEARNING LAB-EMT/PARAMEDIC



# LEARNING LABS-OTA\PTA



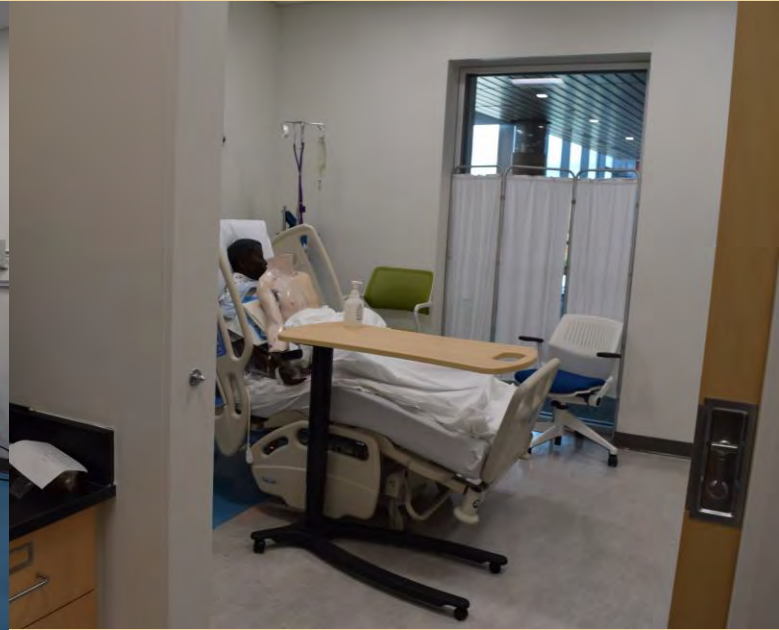


# THERAPY APARTMENT





# HIGH FIDELITY SIMULATION LABS



# CONTROL ROOM & DEBRIEFING



# INTER-PROFESSIONAL EDUCATION (IPE) VIDEO

## In-hospital



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# DEBRIEFING



# COMMUNITY CLINIC





# INFORMAL LEARNING



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# INFORMAL LEARNING



# RESPIRE



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# EQUIPMENT

## Managing Resources

- Surveying\Assessment
- Engagement of Faculty
- Partnered with Manufacturers
- Influence of Local Hospitals
- Cataloguing of new, existing and future
- AV\Technology Integration
- Service Contracts
- Extended Warranties





# FACILITATING THE MISSION



## Framework for adaptability

- Future programs
- Flexible spaces
- Technology backbone



# BENCHMARKING



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# BENCHMARKING

Project	Location	Type of Institution	Users	Project Type	Size	Construction cost	Bid Year	Cost/SF	Escalated to 2021
Central Piedmont	Charlotte, North Carolina	Community College	20 programs including Nursing	New Construction	74,450	22,432,000	2019	\$ 301	\$ 319
Ball State	Muncie, Indiana	University-undergraduate, graduate and medical school	Nursing, Speech Pathology, Audiology, Nutrition, Social Work, Athletic Training and Counseling	New Construction	152,000	\$ 44,700,000	2017	\$ 294	\$ 329
Texas A&M	Texarkana, Texas	University-undergraduate	Nursing, Medical Engineering and Student Services	New Construction	61,896	\$ 24,500,000	2017	\$ 395	\$ 442
Appalachian State College	Boone, North Carolina	University-undergraduate and graduate programs	Nursing, Communication Science and Disorders, Exercise Science, Social Work, Rec. Management, and Physical Education, Student Services and Administration	New Construction	203,000	\$ 63,800,000	2017	\$ 314	\$ 352
Lakeland	Kirtland, Ohio	Community College	23 programs including Nursing	Addition\Renovation	127,000	\$ 49,000,000	2016	\$ 386	\$ 444
Stephens College	Columbia, Missouri	University-graduate	Physician Assistant	Addition\Renovation	23,517	\$ 5,924,000	2015	\$ 252	\$ 297
Marist College	Poughkeepsie, New York	University-undergraduate and graduate programs	Physician Assisting, Biomedical Sciens, Medical Lab. Sciences, Athletic Training and Physical Training	New Construction	61,500	\$ 24,900,000	2015	\$ 405	\$ 478
Malcolm X	Chicago, Illinois	Community College	25 programs including Nursing	New Construction	545,000	\$ 251,900,000	2014	\$ 462	\$ 559
University of Scranton	Scranton, Pennsylvania	University-undergraduate and graduate programs	Physical Therapy, OT, Exercise Science and Food Science	New Construction	116,000	39,500,000	2014	\$ 341	\$ 412
Triton College	River Grove, Illinois	Community College	Nursing, Surgical Tech, DMS, Nuclear Medicine and Ophthalmology	Renovation	71,200	\$ 15,500,000	2013	\$ 218	\$ 270

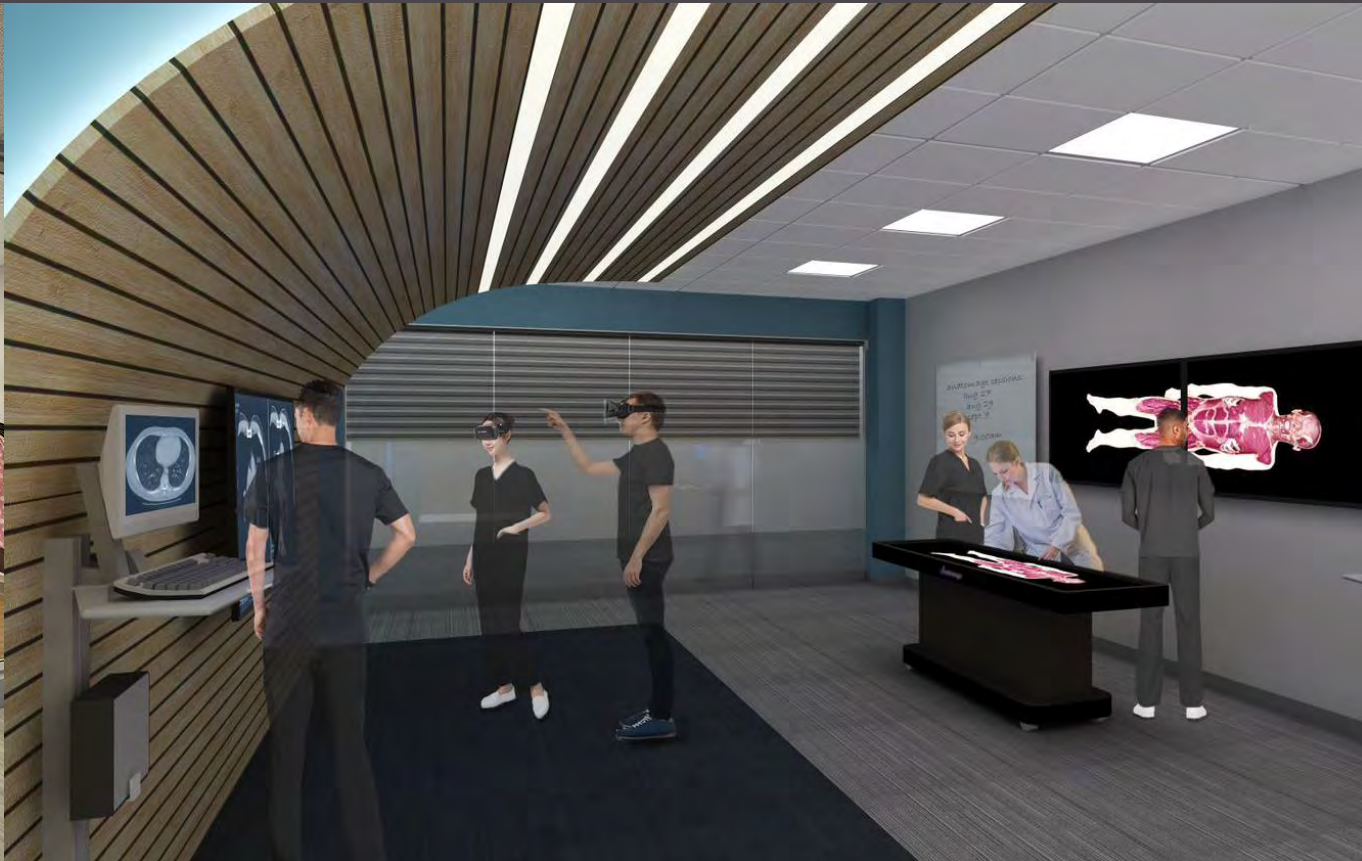




# OTHER TRENDS

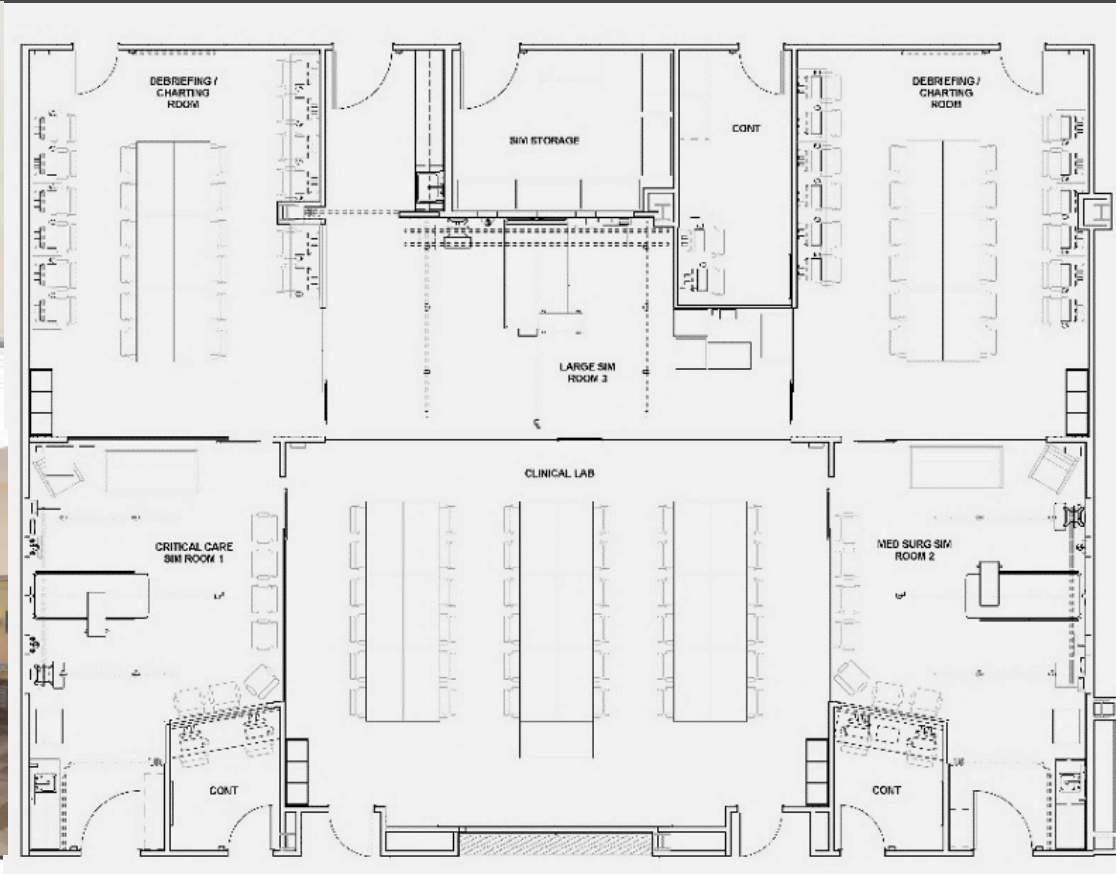


# VARYING EQUIPMENT FIDELITIES





# ADAPTABLE SPACES



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# DEDICATED RESEARCH

- Auditorium
- Classrooms
- Research Lab Modules
- Multi-Species Vivarium with ABSL-3
- Gross Anatomy
- BSL-3 Suite
- Clinical Examination Suites
- Collaboration Spaces
- Graduate Hoteling



# GROSS ANATOMY LAB





# VIVARIA





# DEDICATED SURGICAL TRAINING LAB



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# HUMAN FACTORS





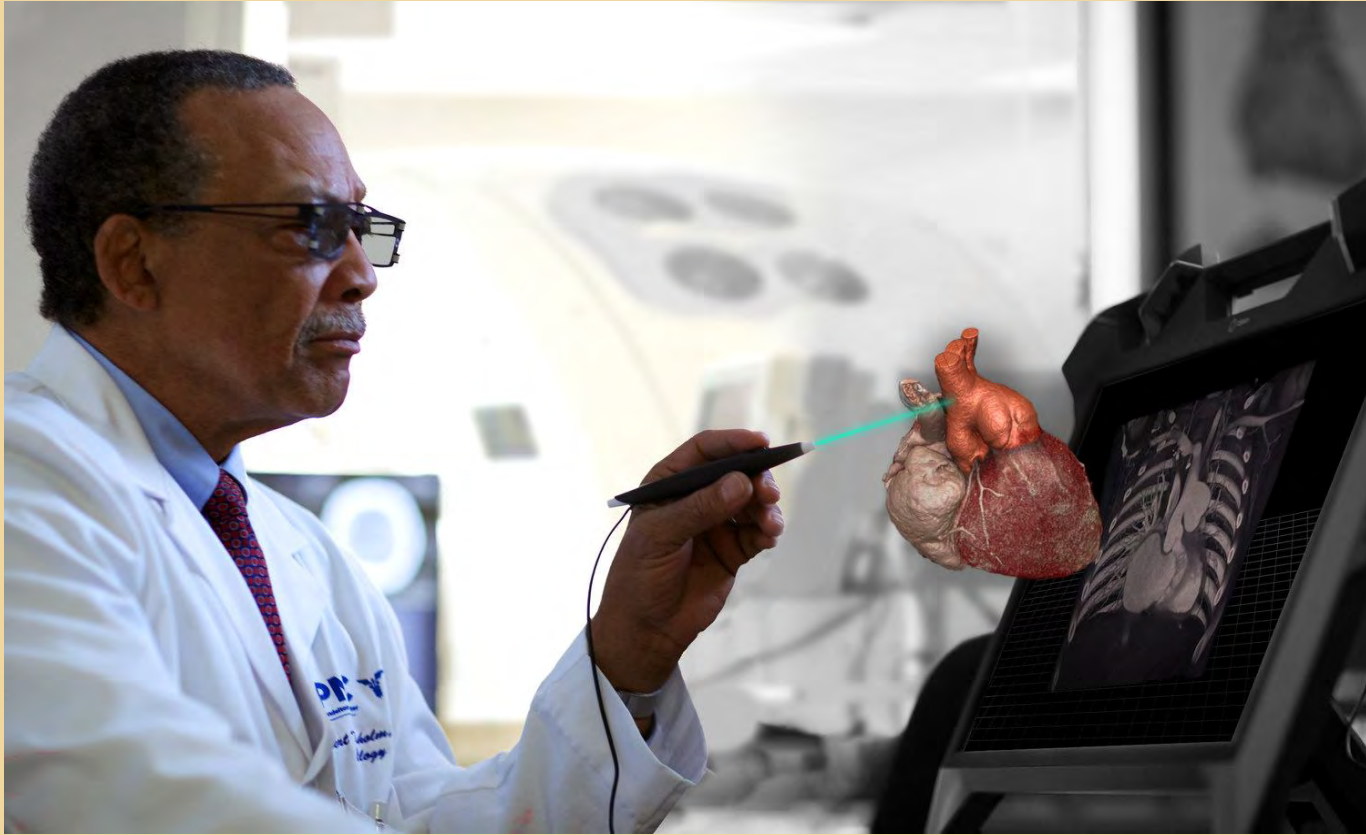




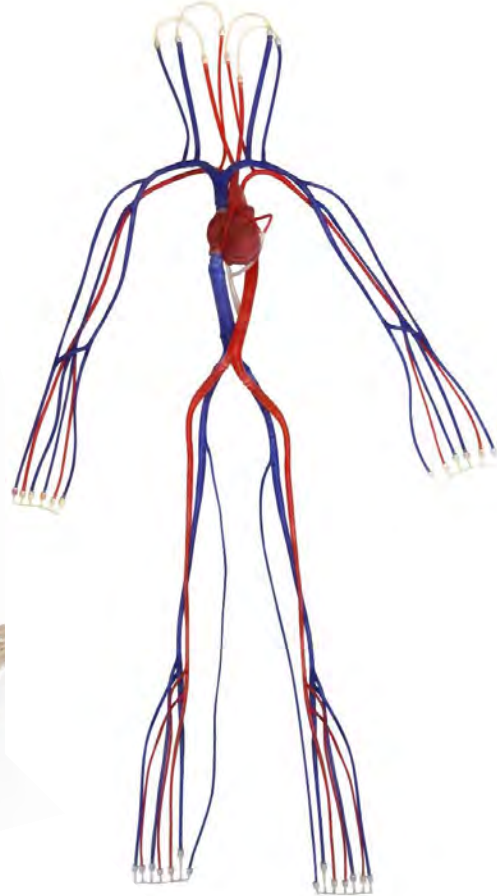
# EMERGING TRENDS



# AUGMENTED REALITY-TRUE 3D



# SYNDAVER





# AUGMENTED REALITY-HOLOGRAM



# TELEPRESENCE-REMOTE EDUCATION



# QUESTIONS?



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