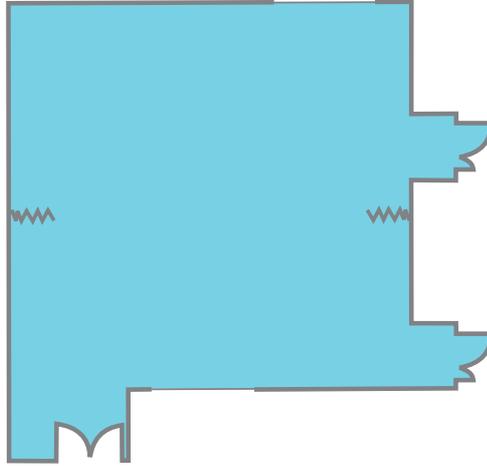


MULTI-PURPOSE LAB

MULTI-PURPOSE LAB



Space/Equipment

SIZE: 125m²

SPECIAL FEATURES:

- A descending room divider can create acoustical isolation
- Curtains can be used to subdivide room into four spaces
- Can be connected to the immersive lab, allowing for all staging aspects of a major disaster
- Two independently functioning control rooms

EQUIPMENT:

- While the flexibility of this space will be maintained there is some fixed equipment:
- Four headwalls with operational gasses to support four concurrent simulations
- Electrical raceway around the perimeter of the lab
- Ceiling mounted receptacles in the piped framework
- The open ceiling accommodates specialty lighting and additional structure for hanging medical equipment

AV/IT:

Input Sources

- IP based PTZ (Pan Tilt Zoom) cameras at each of four stations

Sound

- Ceiling mounted loudspeakers located in each lab
- Ceiling mounted boundary style microphone located for each of four stations

ADDITIONAL: Christie LW650 projector and retractable screen

Potential Educational and Research Activities

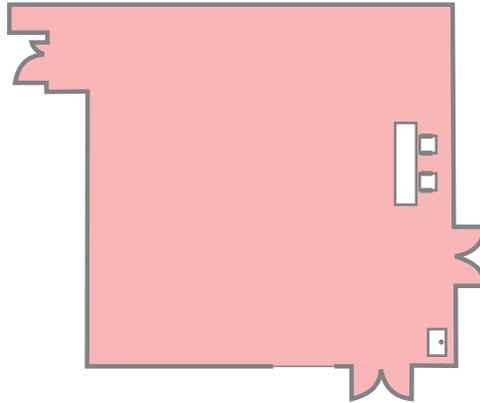
This team-based training laboratory replicates a theatre and can simulate any large-scale care environment (e.g.: crash scene, hospital ward during a disease pandemic). The space can be divided to create four smaller spaces allowing concurrent activities. (e.g.: bootcamps for specialties such as surgery, emergency, critical care, and team challenges).



UNIVERSITY OF ALBERTA
HEALTH SCIENCES COUNCIL
Health Sciences Education and Research Commons



IMMERSIVE LAB



Space/Equipment

SIZE: 125m²

Potential Educational and Research Activities

This space is designed to facilitate the use of immersive technology that can create three dimensional digitization of seamless immersion into a virtual world and actively engage trainees in immersive, collaborative simulations.

Immersive technology uses multi-user virtual environments in which trainees interact with digital objects and tools that support collaborative work. Haptic devices provide force feedback so trainees learn the amount of force to apply when using the tools on the digital objects (e.g. a scalpel during surgery). Trainees share and navigate through computer generated 3D graphical space.

Immersive projection technology is increasingly used for distributed collaboration (collaborating across distances) with highly immersive and surrounding displays. Current specialized applications include, molecular visualization and architectural walk-throughs, however the increasing need for co-visualization of complex data and large-scale models will result in an increasing use of this type of technology for teaching and learning in

specialized medical fields (e.g. surgical procedural training).

This space is currently under development. Some of the activities we envision for the immersive lab include:

- Simulating complex and repeated lab experiments (e.g. transgenics)
- Experience of physiology/anatomy
- Depiction of a 360° rural emergency scene
- Connect with computing science to provide content to meet tech applications
- Staging disaster
- Discussion and exploration of ethics and related issues
- Proteomics
- Virtual cell exploration
- Study reaction time in athletes (simulated game experience)
- Second life, virtual world meetings
- Research sandbox

