Facilities & Other Resources – Northwestern University

Mission Statement:

The Center for Education in Medicine seeks to develop educational products, curricula and leaders to lead local, national and international efforts to transform medical education and improve patient safety, irrespective of socioeconomic or political boundaries.

The Center for Education in Medicine (CEM) of the Feinberg School of Medicine, Northwestern University, is a collection of intellectual capital with a diverse range of experience and is committed to developing new and innovative educational and assessment strategies across the continuum of medical education. The Center promotes ongoing faculty development for all healthcare educators, as well as the development and subsequent dissemination of advanced immersive learning tools and techniques. Within CEM, the Simulation Technology and Immersive Learning (STIL) program as well as the Northwestern Center for Advanced Surgical Education (N-CASE) provide immersive simulation designed upon the premise that experiential learning is a key, effective healthcare education methodology. Educational Research and Innovation (ERI) supports research and educational programs through the development of educational tools (models, simulator modifications) as well as development of high-quality web and video based content.

Environment

Northwestern University and the Feinberg School of Medicine have invested approximately $2 million to provide the necessary faculty equipment, space, and technical and non-technical expertise for healthcare professionals to use immersive learning methodologies.

Facilities

Simulation Technology and Immersive Learning (STIL)

The STIL facility is a five-bay, state-of-the-art facility that opened in 2010. STIL has purchased and maintains a wide variety of immersive simulators (e.g., Laerdal SimMan 3G), a broad array of partial task trainers, a dedicated virtual reality lab as well as staff capable of using this equipment for a range of purposes. Three full-time simulation technicians support events within the center and faculty within CEM have broad experience in the development and implementation of simulation-based learning and assessment activities within the center as well as in the clinic. STIL has the capacity to hold multi-room, simultaneous events serving a large learning audience.

Northwestern Center for Advanced Surgical Education (N-CASE)

NCASE is a 2,500 square-foot facility consisting of a surgical training suite with an open floor plan and an adjacent suite for research and development. The additional suite offers the ability to practice more complicated and encompassing procedures in an environment modeled after a typical operating room. A dry lab is available for basic skills development, such as suturing and laparoscopic techniques. The lab supports a virtual reality space for practicing computer-based skills training, which is open to trainees around the clock. Nearby, learners can assess their work and reflect on their experiences in didactic
conference and debriefing areas.

**Education Research and Innovation (ERI)**

ERI supports two distinct programs: (a) Instructional Design and Development builds interactive web-based educational content for a broad array of clients. Staffed by educational design and content development experts along with two videographers, this group can create robust, professional educational content to address a range of needs. Web hosting is available through third parties or University assets. (b) Educational Device Design and Engineering is an in-house lab staffed by an engineer and product design professionals, experienced in bringing novel educational tools from concept to production. Capacities range between model development from hand-made molds and 3D printed models from CT and MRI data. These two programs within ERI represent unique capacities of CEM.

**General Center Resources**

Audiovisual Support (STIL and N-CASE): STIL is equipped to provide audiovisual recording of events as well as live simulcast streaming in high definition for one or more simultaneous events. Participants can be observed in real time or on video for use as part of instruction or evaluation, both in the simulation space and in the operating suites. A video archival system uses University servers; as such this system is secure and data is backed up regularly.

**Northwestern University/Northwestern Memorial Hospital (Chicago Medical Campus)**

Northwestern Memorial is one of the nation's preeminent academic medical centers, with 854 beds, providing care at the main Feinberg Pavilion, the Prentice Women's Hospital and the Stone Institute of Psychiatry. It is the primary teaching hospital for Feinberg School of Medicine and is a major Midwestern referral center. The medical staff represents virtually every specialty and is comprised of 1,603 affiliated physicians. Northwestern Memorial is Chicago's only academic medical center participating in city and state Level I trauma networks and as a Level III neonatal intensive care unit.

Computer: The Northwestern University community is served by a fiber-optic-cable-based Ethernet backbone, which serves the Chicago campus. All faculty and staff have access to modern PC or Apple computers connected to that backbone. All faculty and staff have access to email and internet as well as academic library services through this superstructure. Network institutional PCs have user-specific storage directories that are backed up continuously.

Northwestern Library Resources: Investigators with a Northwestern affiliation have access to the Galter Health Sciences Library at Northwestern University's Feinberg School of Medicine and all other Northwestern University libraries. These libraries house an extensive collection of journals and books and Northwestern sponsors on-line full text journal services.