**IT/Simulation Technician**

Standard Operating Procedure (SOP)

# Introduction: The position of IT/Simulation Technician is one to support the Information Technology, Audio/Visual Systems, and High-Fidelity Simulation area of the Clinical Simulation Center of Las Vegas, which currently champions the educational needs of UNLV School of Nursing, NSC School of Nursing, UNSOM, and other external entities.

# Purpose: The purpose of this document is to provide detailed, standardized protocol to successfully perform the essential duties of the IT/Simulation Technician.

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# Information Technology

## Desktop Maintenance: The Center has desktop computers in the four Classrooms, two Clinical Skills Labs, and four Faculty Offices that are shared by faculty and staff. These computers are configured NOT to automatically update critical software as these updates often require a reboot or conflict with running software, such as PowerPoint, and therefore could disrupt a class in progress. Updates should be performed at least monthly and may be required more frequently when critical updates are released and publicized in IT newsletters, blog posts, and software vendor websites.

### Microsoft Windows XP Updates

#### Click the “Start” button

#### Select “All Programs”

#### Click “Microsoft Update”

#### Click the “Custom” button

#### Ensure all “High Priority” updates are checked

#### Under “Software, Optional” it is advisable to install “Update for Root Certificate [“date”]” and “Update for Internet Explorer 8 Compatibility View List”

### Mozilla Firefox (v. 3.6.x)

#### How to disable updater

##### Open Mozilla Firefox

##### Click “Tools” -> “Options”

##### Click the “Advanced” button

##### Click the “Update” Tab

##### Uncheck “Firefox” under “Automatically Check for updates to:”

#### How to manually download updates

##### Open Mozilla Firefox

##### Click “Help” -> “Check for Updates”

##### Let Firefox find the latest version and select to download the update

### Mozilla Firefox (v. 4.0.x and 5.0.x)

#### How to disable updater

##### Open Mozilla Firefox

##### Click “Tools” -> “Options”

##### Click the “Advanced” button

##### Click the “Update” Tab

##### Uncheck “Firefox” under “Automatically Check for updates to:”

#### How to manually download updates

##### Open Mozilla Firefox

##### Click “Help” -> “About Firefox”

##### Click “Check for Updates”

##### Let Firefox find the latest version and select to download the update

### Adobe Reader (v. 9.x and 10.x)

#### How to disable updater

##### Open Adobe Reader

##### Click “Edit” -> “Preferences”

##### Click the “Updater” Category

##### Select “Do not download or install updates automatically”

#### How to manually download updates

##### Open Adobe Acrobat Reader

##### Click Help -> Check for Updates

##### Let Adobe Reader find the latest version and select to download the update

### Adobe Flash

#### Go to www.adobe.com

#### Select “Adobe Flash Player” under the “Download” section

#### You must close Mozilla Firefox when installing

### Java

#### Go to www.java.com

#### Click “Do I have Java?”

#### Click “Verify Java version”

## Laptop Maintenance: The Center has 67 laptops stored in three laptop carts, currently in Classroom 1 and both Clinical Skills Labs. These laptops have special software (Deep Freeze) that prevents students from installing/deleting/infecting/hacking the operating system or files. Inside Windows XP, these systems appear normal, but after said actions have occurred, simply restarting the computer restores the Operating System. This yields some challenges. Firstly, any files saved to the desktop are automatically deleted after rebooting, which an unsuspecting user could take issue with after losing her documents. Ensure the students/users DO NOT save anything to the computer (i.e. Windows desktop). Secondly, any updates (i.e. antivirus, Windows) will automatically be deleted. Therefore, a yearly scheduled refresh and update procedure is required for these locked laptops.

### Update procedures

#### There is a Gateway computer in Office 109G that controls this software.

#### Turn on the Gateway computer

#### Turn on about 6 laptop computers and connect them to the CSCLV network via wired Ethernet cables. Note the “Service Tag (S/N)” number on the bottom of each laptop

#### On the Gateway computer, double click “Deep Freeze Console”

#### Click “[localhost:7725]”

#### Click “Entire Network”

#### Click “ClinicalSimLab”

#### Under the “Workstation” tab, find the 6 laptops in the list, matching them by service tag numbers.

#### Hold “Ctrl” and click each of these 6 laptops, which selects them all

#### Right click on one of the highlighted laptops, select “Reboot Thawed”

#### Go back to the 6 desktops and wait for them to reboot (5 minutes)

#### Install same updates in preview “Desktop Maintenance” Section

#### Return to Gateway computer

#### Hold “Ctrl” and click each of the 6 laptops, which selects them all

#### Right click on one of the highlighted laptops, select “Reboot Frozen”

#### Go back to the 6 desktops and wait for them to reboot (5 minutes)

#### Shut them each down, and then repeat with 6 more

## Server Maintenance: Servers for the B-Line SimBridge, SimCaptures, Mobile SimBridge, and Clinical Skills Software are housed inside Room 109O (supported by B-Line). This room is climate controlled and provides adequate cooling and airflow to ensure the continued operations of these servers. Room 109P houses the servers for the Voice over IP (VoIP) phone system used at the CSCLV (supported by UNLV Telecommunications). Additionally, racks in the back of Classroom 4 and Classroom 1 house additional equipment used by the teleconference system (supported by CCS), and the rack in the SP Hallway stores the hardware for the Clinical Skills Software (supported by B-Line). See Appendix B for contact information.

## Procedure for Virus alerts: The network at the CSCLV is managed and maintained by the UNLV Office of Information Technology (OIT). It is a fast 1-gigabit network that allows for easy “plug-n-play” access via data ports in each room, and wireless access across the whole building. If any Information Technology device attached to the CSCLV network has been deemed infected with malware, it is important to disconnect the device and notify the UNLV OIT Help Desk (see Appendix B) if this threat is suspected to have propagated on the network. UNLV OIT has provided a free version of Symantec Antivirus for faculty/staff office and home use (including personal laptops connecting to the CSCLV network). The download link is http://oit.unlv.edu/software/symantec-antivirus

## Barcoding Inventory: Equipment in the CSCLV that 1) costs over $5,000, 2) is Information Technology costing more than $2,000, or 3) is deemed sensitive must be barcoded in accordance with the Nevada System of Higher Education policies and procedures. The initial barcoding of equipment has been orchestrated under the purview of the UNLV Shipping/Receiving Coordinator in the Shadow Lane Building B department. Yearly, this list needs to be verified and it is under the management of the IT/Simulation Technician to verify 1) location, 2) barcode, and 3) changes to the listed equipment.

## IT Phone: A prepaid phone provided by the CSCLV to the IT/Simulation Technician allows for quick access for classroom technical support by a user. In the event of scheduled leave, the IT/Simulation Technician should entrust this phone with another staff member to handle pressing IT issues. The current phone number is 702-526-6317

## Website Management: The IT/Simulation Technician shares the responsibility of the CSCLV’s official website with the director. To access the website:

### Contact the NSHE System Computing Services for an account (currently Sam Shield, Sam Shield/SCS/UCCSN@SCS)

### Use your account to log in to http://csclv.nevada.edu/admin/

### Click “Site Manger” on the left menu

### Change “Levels Displayed” to “3” or more and Click “Update”

### Click on a page title and edit the page similar to a Microsoft Word Document. Refer to the “Help” menu on the top right of the window for specific details with editing a page.

## A/V Production: The IT/Simulation Technician is required to support the digital media content on CSCLV’s website, including how-to and educational video support. This position manages the physical protection and maintenance of the still camera and HD video camcorder of the Center. A basic course in Video Production and Editing is requested if this individual does not have a strong A/V Production background.

## New Equipment/Research: The IT/Simulation Technician is required to have a finger on the pulse of the ever-changing Information Technology and Digital Media industries. It is important to subscribe to the UNLV TechInfo for campus specific IT information, and to bookmark Microsoft TechNet and other online resources. The director may require the IT/Simulation Technician to research new equipment purchases and compare hardware, and to provide guidance on IT lifecycle at the Center.

## Classroom Lecterns: Each classroom and skills lab includes a state-of-the-art lectern, which houses an intuitive touch panel that controls the entire technology in the classrooms. These classrooms also contain a lockbox that houses a key to the lectern (code: 1001). Inside are lavalier and handheld microphones (classroom 3 does not have a lavalier microphone), as well as iClickers (Classroom 1 and 4 only). Detailed information about this lectern and touch panel can be found by watching the following video: http://www.youtube.com/watch?v=j-WCWf7ZId0

# Simulation: The duties of the IT/Simulation Technician are split between 1) managing the Information Technology resources of the CSCLV and 2) the use, maintenance, and repair of the High-Fidelity Simulation equipment of the Center.

## Manikins:

###  SimMan 3G Setup

#### Close condensation valve on the right leg by turning the lever upwards

#### Turn on the manikin by locating the power button on the right side by the waist

#### Turn on the 3G monitor in the room and wait for Wi-Fi connection

#### Turn on the laptop in Sim Control

#### \*\*\*Note: Each 3G Manikin has its own designated Wi-Fi connection that is linked to the 3G laptops. If the laptops crosslink or vice versa with the Wi-Fi connection, the SimMan software will not work properly. i.e. Wi-Fi connection for “SimMan 11” needs to link to the “SimMan 11” laptop. The Wi-Fi connection for “SimMan 11” should not connect to the “SimMan 22” laptop.

### SimMan 3G Shut down Steps:

#### Turn off the manikin by locating the power button on the right side by the waist

#### Open condensation valve on the right leg by turning the lever downward

#### Close the “Patient Monitor” application displayed on the 3G monitor by clicking “Main” then choose “Shut down -> Really Shut down”. Once the application is closed, completely turn off the monitor by pressing “Start” -> “Shut Down”

#### Turn off the laptop in Sim Control

### SimMan Laptop Steps:

#### Click SimMan once laptop loads

#### Select “Instructor Application” icon on the desktop

#### Select the appropriate manikin number (i.e.: “SimMan11”).

#### \*\*\*Note: Do not run the “Virtual Manikin”

#### Select “Healthy Patient” or specific scenario if programmed

#### If not programmed, set vitals and other components necessary for scenario (i.e.: sinus rhythm, crackles, etc.)

### Gaumard Setup

#### Turn on room monitor

#### Turn on laptop in Sim Control

#### Wait for manikin to “wake” once laptop responds to software

#### Monitor Settings

##### On taskbar, click “nview” icon

##### Ensure “clone” is selected. This allows B-Line to capture the monitor feed.

### Recording Session in B-Line:

#### Turn on workstation computer (Dell) located in Sim Control

#### Open Mozilla Firefox from Desktop

#### Log in

#### Click “Start/Join Session”

#### Click SimCapture (see label on top of Dell monitor work station being used)

#### Click “Choose a Scenario – None - Enter Name Below”

#### Type in a unique name for your week, i.e. “UNLV – 415 – Piya Jordan (18)” where “(18)” refers to the Evolve case number, when applicable

#### Click Start Session

#### Go the debrief room that faculty and class have been assigned

##### Press “ON” on the touchpanel

##### Turn on Dell Desktop in rack labeled “2” ( No password needed, press enter)

##### On the Windows XP desktop, open Internet Explorer

##### Log in with your username and password

##### Click “Start/Join Session”

##### Click SimCapture to join (Note: This is the same label on top of Dell monitor work station in Sim Control)

#### Go back to Sim Control. Press “Start Recording” when facilitator is ready

#### Once finished, click “Stop Session”

### Debrief Room Setup:

#### Go to Debrief Room that faculty and class have been assigned

#### Click “Debrief Session”

#### Find debrief video in the list.

#### \*\*\*Note: Correct video is most likely at the top of the list

### Shutting Down A/V Systems:

#### Once the session has completed, shut down the projector by pressing “OFF” on the touchpanel in the debrief room(s) faculty and class have been assigned.

#### Shut down Dell computer and SimMan laptop in Sim Control by pressing “Start” -> “Shut Down”

## Room Orientation: A proper room orientation provides student and faculty members with the essential functionalities of the manikin and supplies contained in the room. A brief checklist is located by each station in Sim Control

### Checklist for Room Introduction

#### Ensure that GLOVES are to be worn when touching or handling the Manikin. Remind students not to use Betadine or INK as it will stain the Manikin.

#### Bed Mechanics

##### Side Rails

##### Head of the bed (Low Fowlers, Fowlers, High Fowlers)

##### Foot pump (Raising/Lowering)

#### SimMan

##### Pulses (Carotid, Radial, Brachial, Femoral, Popliteal, Pedal)

##### Auscultation (Heart, Lung, Bowel)

##### BP

###### Manual

###### Place stethoscope in the center of the antecubital

###### Automatic (Touch Screen)

##### Pupils react to light

##### IV Fluids can be given

##### IV Fluids exit via blue tube – FRAGILE!

#### Touch Screen for BP, all other vital signs are current

#### Other

##### SubQ or IM shots on injection pad

##### Bed side table supplies (Emesis basin, Basin, Fracture Pan, Bed Pan)

##### Room supplies all labeled

##### Phone – Call OPERATOR if need anything (i.e. pharmacy, doctor, etc.)

##### Crash cart available (To access supplies break plastic lock)

##### Medication box

##### Laptop

#### Assume everything is a real hospital setting. Have learners verbalize procedures if unsure

## Staging the Scenario: Scenarios will be setup based upon the request of the instructors. Cases are created by faculty with support via Simulation Technician or provided “Off the shelf” via our contract with Elsevier’s Evolve 30 case scenarios. All cases are in plastic boxes stored in Sim Control and are labeled. Each plastic box contains a folder or chart that gives directions in order to stage the scenario. Additionally, the boxes will contain the patient identification band, medications, and other props that will need to go on the manikin. The *Evolve* scenarios contain

## - Red folders within each plastic box. The folder will contain two separate packets in different colors.

## The Green Packet is for the Technician. The packet contains patient overview, staging, and algorithm.

## The White Packet is given to the Faculty that contains: patient overview, staging, roles, and algorithm.

## The burgundy three ring binder also contains patient charts and are used the same way as the red folders from the Evolve scenario. Finding the necessary information to stage the scenario will be under “Situation” or “Patient Report” under the tab “Patient History”. Referring to “Physician Orders” and “Medication Administration” tabs will provide information for medications and other props needed for the scenario.

### Select the appropriate plastic box for the scenario previously confirmed by the Sim Tech with the faculty

### Follow the “Staging Steps” if using Evolve. All other, use “Situation” or “Patient Report”

### On the white board, write the day and time based from the “Algorithm Quick Card” if referring to the Evolve scenarios. All other cases use Today’s date.

#### Provide the appropriate phone number(s) on the white board. i.e.: “Operator”, Doctor and/or Rapid Response Team

#### \*\*\*Note: Phone numbers based on assigned Debrief room or Sim Control station

### Once room is staged, place the plastic box under the sink and put all necessary papers for the scenario in Sim Control in the station being used.

## Running Simulations:

### With direction from the facilitator, use the Green Packet to manage the algorithm for the given scenario.

### Voice acting is typically performed by the facilitator. However, it may be necessary to act as the patient. It is the best practice to change accent and tone to match the patient.

### A touch panel provides controls for camera movement, zoom level, and quick preset to jump quickly to various spots in the room. A label on the touch panel provides a list of camera presets.

## Break down of Staged Scenario: All items used in the scenario will be placed back in the plastic box. All other items, such as equipment or moulage will be stored in its appropriate location(s).

### Gather all paper work used for the scenario, this includes the Technician and faculty references.

### Remove ID bands, IV bags, dressings, and all other items used to stage the scenario.

### Put all medications back in the plastic box and re-stock supplies if necessary.

### Re-stock necessary supplies for room if applicable. i.e.: Syringes, crash cart, needles, gloves, etc.

### Empty the drainage bag for the Manikin located under the bed or gurney.

### Store the plastic box in Sim Control in its appropriate place.

## B-Line SimBridge (see Appendix A for accessing videos remotely on B-Line)

### Creating users in SimBridge

#### Go to SimBridge on one of the workstation computers (Dell) in Sim Control. SimBridge is the homepage on Mozilla Firefox

#### Log in

#### Click “Administration”

#### Click “Users”

#### Click “New User”

#### Fill out form for desired user. The naming convention for new faculty users is

#### user: “FirstNameLastName” (All together with capital letters for first and last name)

#### password: “LastName9” (Add number 9 to last name with first letter capitalized)

#### Select Role as “Content Admin.” This is the default group with proper security permissions set.

#### Ensure organization matches the user’s school

#### Click “Save” and close the web browser

## B-Line Standardized Patient: The videos for the SP rooms are available for streaming from any computer with Internet access. You will need Apple Quicktime installed on your computer, which is available for free from www.apple.com if you don't already have it. Once installed, please follow the steps below to configure Quicktime correctly.

### Open the Quicktime player from you Start Menu

### Go to Edit -> Preferences -> Quicktime Preferences.

### Go to the "Advanced" tab and set the Transport Setup to Custom.

### In the box that appears, set the Protocol to HTTP and the port to custom and the number to 554.

### Close Quicktime

### Now you are ready to access the SP Videos:

### Go to the following website http://clinicalskills.csclv.unlv.edu/

### Log in with u: UNLVView / p: shadowlane

### Click on “Recent Videos List”

### The videos are sorted by date. Click on a date to open the video. The student's last name will be in the "Case" field for your reference.

# Administrative and Managerial

## Managing the Clinical Education Assistant: The Clinical Education Assistant requires shared supervision under the IT/Simulation Technician. It is best to hold a weekly meeting with the Clinical Simulation Technician and the Clinical Education Assistant to map out the weekly schedule and to divide up tasks. Take into consideration that the Clinical Education Assistant should be given duties based on his/her skill level and a supervisor should be immediately available via phone to support any issues.

## Staff Meetings: Run by the director, staff members at the CSCLV meet weekly to discuss the schedule and “hot topics” for the week. It is expected to bring the simulation schedule and updates to various projects. This includes the status of IT updates, a summary of discussions with vendors who support CSCLV, and any issues that could impact the normal operations of the Center.

# Appendix A: Accessing Simulation Videos

## To access simulation videos from anywhere with Internet access

### Go to: <http://simbridge.csclv.unlv.edu/>

### Log in with

### user: “FirstNameLastName” (All together with capital letters for first and last name)

### password: “LastName9” (Add number 9 to last name with first letter )

### Click on “Debrief Session” to find desired video to stream. Keep in mind that depending on connection speed, the video may be slightly choppy.

## To stream live videos at the CSCLV: This feature is not available through Internet access. It is only available in 1) all four debrief rooms and 2) all four classrooms by connecting the special network cable located inside the lectern (open with key located inside combo lock (code: 1001)) to the desktop PC. One cable is labeled “SimBridge” and the other is labeled “Clinical Skills.”

### SimBridge

#### Open web browser and go to: http://10.38.1.132/

### Clinical Skills

#### Open web browser and go to: http://10.22.0.10/

# Appendix B: Technical Support Contacts

For advanced troubleshooting and repair, the following are the technical support contact numbers.

B-Line Medical

Support Team

301-768-4460

support@blinemedical.com

CCS Presentation Systems

Brian Waite

702-281-6426

bwaite@ccsprojects.com

Leardal Medical Technical Support

877-LAERDAL (523-7325)

us-techsupport@laerdal.com

Gaumard Technical Support

1-800-882-6655

support@gaumard.com

UNLV Office of Information Technology

702-895-0777

ithelp@unlv.edu

UNLV Telecommunications VoIP Phone Support

http://iservicedesk.unlv.edu:81/Request.aspx?ISD=TS