ITEC/PT3 Video Studio

Equipment (see Appendix A for more detailed list)

Lighting
- track lighting
- omni lighting kit

Cameras
- studio cameras (2)
- digital video camera (2 – kept in ITEC office)

Sound
- lavalier mics (2)
- directional mics (2)
- studio mic
- mic stands
- 4-track recorder

Control Room
- camera/deck switcher
- audio board with mic inputs
- play and record VCRs
- tape player
- monitors (in control room and studio)

Set
- background curtain
- chairs
- blue screen

Other Equipment
- ladder
- tools
- gloves
- tripod (for DV cams)

ITEC/PT3 Video Studio

Studio Uses

"Talking Heads" – someone speaking to the camera or mics
- Tape narration for a video (studio is soundproof)
- Videotape narrator introducing a piece or explaining something

Interview format
- Chairs and curtain for interview or "talk show" set
- Multi-camera set-up for live or recorded taping

Demonstration
- Large space, controlled environment to demonstrate skills

Bluescreening
- Use the bluescreen to insert a different background
- Insert background later on computer, or live in the studio

Photo shoots
- Use the sets, lights and bluescreen for controlled photo shoots

Sound Recording
- Tape narration, sound effects, or music
- Use the soundboard in the studio or 4-track recorder for mixing

Broadcast
- Send show out live to closed circuit campus television
- Send show out live over the internet (streaming)

ITEC/PT3 Video Studio

Control Room Uses

Multi-camera shoots
- Use two studio cameras and switcher to tape shows live
- Add a DV camera for 3 camera shoots
- Add mics for live sound
- Add pre-taped segments played on studio VCR or tape deck

Different show formats
- News show with multiple cameras, taped stories played back on VCR, and bluescreened weather map
- Interview or talk show with chairs, mics, and playback of interviewees' work

Live blue-screening
- Use switcher, cameras, bluescreen, and playback VCR to insert a different background to the action happening in the studio and tape it live
- Talent can use the monitor in the studio to see where they are in relation to the background
- Technique used in weather reports
- Technique used in effects shots in movies

Broadcast
- Send show out live to closed circuit campus television
- Send show out live over the internet (streaming)

<p align="center">**ITEC/PT3 Video Studio**</p>

Use of Equipment in Studio (Task Analysis)

SAFETY – Most Important
- **Always have sufficient training before touching anything**
- **Always be mindful of cables and equipment – WATCH YOUR STEP!**
- **Always wear gloves when handling lights**
- **Always warn cast and crew before turning on lights**
- **Always turn off lights when not in use**
- **Always have someone hold the ladder when you're on it**
- **Always hold light or camera when moving it on a stand or tripod**

Lighting
- Be aware of all safety issues above – USE GLOVES!
- Never touch bulbs with fingers (oils will cause bulb to blow)
- Equipment needed for lighting
  1. Gloves
  2. Lights
  3. Stands or track
  4. Power cords and outlets, extension cords
  5. Barn doors, scrims, snoots, umbrellas, and gels
  6. Ladder
- Steps for setting up lights:
  1. Position light (on track or on stand)
  2. Attach barn doors, snoots, scrims, umbrellas
  3. Attach power cord, plug in light
  4. Warn cast and crew, turn on light
  5. Reposition light, barn doors, scrims, etc.
  6. Add gels if desired.
  7. Always turn off lights when not in use.
- Concepts for setting up lights:
  1. 3 – point lighting (key, fill, back light)
  2. Lighting background (bluescreen or curtain)
  3. Lighting for multi-camera shoots
  4. Lighting for moving talent

Use of Equipment in Studio (Task Analysis) - continued

Camera Use – DV Camera
- ◆ Be aware of all safety issues (page 4)
- ◆ Equipment needed for DV Camera use
  1. Camera
  2. DV tape
  3. Charged batteries and/or power cord with outlet & extension cord
  4. Lighting
  5. Headphones
  6. External microphone (optional)
  7. Tripod (optional)
  8. Connection to external monitor (optional)
- ◆ Steps for DV Camera use
  1. Decide where talent and camera will be positioned
  2. Set up tripod, attach camera (optional)
  3. Attach power cord or battery, power up camera
  4. Load DV tape into camera
  5. Position talent or subject
  6. Position, turn on, and adjust lights
  7. Adjust camera's white balance, exposure, and focus (or use auto settings)
  8. Attach external microphone (optional)
  9. Test sound with earphones – adjust audio level in camera (if available)
  10. Rehease action – performance, blocking, timing, sound, camera movement
  11. Re-adjust camera settings and position, lighting, microphone position, talent or subject performance and blocking (as needed)
- ◆ Concepts for DV Camera use
  1. Basic operation
  2. Adjusting settings manually
  3. Different types of shots and their uses
  4. Tripod versus hand-held
  5. Proper use of camera movement and zooming
  6. Multi-camera set-up

Use of Equipment in Studio (Task Analysis) - continued

Microphone Use
- ◆ Be aware of all safety issues (page 4)
- ◆ Equipment needed for Microphone use
    1. Microphone(s)
    2. Cable(s)
    3. Batteries (lavalier mic)
    4. Headphones (or speakers in control room)
- ◆ Steps for Microphone use
    1. Insert battery (lavalier mic)
    2. Attach microphone to clip (lavalier mic) or stand
    3. Connect mic to cord
    4. Connect cord to camera, 4-track or control room breakout box
    5. Position mic on stand or clip on talent (lavalier mic)
    6. Connect headphones to camera or 4-track, or turn on speakers in control room
    7. Have talent speak, and test levels of mic(s)
    8. Adjust levels on camera, 4-track, or audio board in control room
    9. Rehease action – performance, blocking, timing, sound, camera movement
    10. Re-adjust microphone position, levels, talent or subject performance and blocking (as needed)
- ◆ Concepts for Microphone use
    1. Different types of microphones and their uses
    2. Proper microphone technique for talent
    3. Proper positioning of microphones
    4. Adjusting input levels
    5. Monitoring sound
    6. Camera built-in mic versus external mic
    7. Multiple microphone set-ups

Use of Equipment in Studio (Task Analysis) - continued

Control Room Use

- ◆ Be aware of all safety issues (page 4)
- ◆ Equipment needed for Control Room use
  1. Camera(s)
  2. Microphone(s)
  3. Lights
  4. Cables
  5. Control Room supplies (see Appendix A)
- ◆ Steps for Control Room use

  In the studio:

  1. Turn on some lights, so that the cameras will show an image when the control room is switched on.

  2. If using the camcorder (camera 3), plug it in, turn the power on, and hit the "display" button until the display is as clear as possible (unfortunately, it always shows some characters). Choose a shutter speed by repeatedly pressing the "shutter" button.

  3. Choose a microphone(s) from the table by the control room. Make sure that they are plugged in to the box under the control room window, and note the numbers of the mics (1,2,3).

  4. If using the lavalier mics, put in their batteries and switch them "on".

  5. For cameras 1 and 2 (studio cameras): These cameras are switched on from the control room (see below). Once they are on, zoom in and focus on your subject, then zoom out. Put on headphones and adjust level for speaking and listening to control room.

  In the control room:

  1. Turn on power on rack under the table (just the switch at the top of the rack).

  2. Turn on the lower VCR (record VCR). Do not turn on the upper VCR yet.

  3. If prompted, push the "up" arrow on the VCR to select "English Language".

  4. Using the "input" button on the remote control, select "L1" (line 1). You may now turn on the upper VCR (they respond to the same remote, so avoid using the remote from now on).

  5. You should now see an image in the "Program" monitor, to the right of the switcher's monitor.

6. Have someone in the studio test the microphones while you check the levels on the sound board. "A" monitors the sound coming into the board. "P" monitors the sound going out to the record VCR.

7. To communicate with camera operators, put on headphones and adjust levels. Speak into mic.

8. To play a VHS tape as part of the program, use the upper (play) VCR. Adjust the sound levels for the play VCR like you would for a mic. Switch to the play VCR like you would to a camera (it's letter "D" on the switcher.)

9. To play an audio tape as part of the program: Use the tape deck, and adjust the levels like you would for a mic.

10. To record a program, insert a cassette into the lower (record) VCR and press "record". You may want to record a test to make sure that the various sound inputs (mics, VCR, tape deck) are being routed through to the record VCR. Play your test in the play VCR.

- Concepts for Control Roomuse
    1. Working as a team
    2. Multiple camera set-ups
    3. Multiple microphone set-ups
    4. Switching between cameras and microphones
    5. Inserting playback material from VCR or audio tape
    6. Incorporating live bluescreening (see page 9)

Use of Equipment in Studio (Task Analysis) - continued

Live Bluescreening Using the Control Room Switcher and Chroma Key
- ◆ Be aware of all safety issues (page 4)
- ◆ Equipment needed for Live Bluescreening
  1. Bluescreen
  2. Camera(s)
  3. Microphone(s)
  4. Lights
  5. Cables
  6. Control Room supplies (see page 1)
- ◆ Steps for Live Bluescreening
  1. Pull down bluescreen, if not in use. Make sure paper is not ripped or excessively creased or dirty.

  2. Light your foreground shot, with subject, in front of the blue screen and frame it in the camera you want to shoot it with.

  3. Choose your background - either from the playback VCR or from another camera.

  4. Using the switcher, choose the foreground shot on the lower (green) selector.

  5. Using the switcher, choose the background shot on the upper (yellow) selector.

  6. Hit the "Chroma Key" button on the switcher.

  7. Use the arrow pad on the switcher to select the color/area that you want to key out of the foreground shot and press the "OK" button.

  8. Repeat the above step as many times as needed to key out all the colors you want to key out. (Note: you may have to key out multiple shades of the blue screen if it is not lit uniformly. This may result in parts of your subject being keyed out. You may want your subject to be standing in the shot when you do the keying, or have them step in at times during the keying process to check this).

  9. When you are satisfsied with the Chroma Key effect, hit the "Play (Auto Take)" button to play the effect through to the program monitor and the record VCR.

ITEC/PT3 Video Studio

Appendix A: ITEC Video Studio (BH 165/165A) Equipment List

Equipment	SFSU #
Cameras/Tripods: (3) Sharp XC-800 MK II Color Cameras, on: (3) Boyen 316 camera dollies (1) Panasonic AG-188 VHS Camcorder (1) Ambico V-0552 tripod Microphones: (2) Electro-Voice 635A Dynamic Omni- directional microphones, with table stands (1) Electro-Voice RE 20 (2) Lavalier Mics Lights: (2) LTM/LT 650/LT 1000/EN 50/ 082.2 one with bulb: EGT 1000W 120 V 64742 <u>K</u>658 one with bulb: 4YA EGN 120V 500W (2)Videssence VMF 120 SRGB both with bulb: (3) GE Residential light F40RES 40W E (2) Portable Worklights QH-501 + stand (1) Portable Worklight E164806 + mini stand (1) Portable Lowell Omni light kit Other: (1) Tascam Portastudio 424 MK II four-track (1) roll of Bluescreen paper (9ft. wide) (1) roll of Bluescreen paper (4ft. wide)	506080, 506083, 506075 (not working) 124780, 124781,124779 127179