FIELD PRODUCTION

ACCT-BVP2-2. Students will exhibit proper use of field equipment and its functions.

a. Describe electronic news gathering (ENG) and electronic field production.
b. Set up ENG equipment for field production.
c. Operate ENG equipment during production segments.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

SYSTEM ELEMENTS OF FIELD PRODUCTION

The principal obviously could not bring her new computer lab into the studio, so someone had to go on location to videotape the event. Such location shooting normally falls into the ENG (electronic news gathering) category and is accomplished with a relatively simple field production system. All you really need is someone who operates the camcorder and a field reporter who describes the action and tries to get some brief comments from the principal and perhaps a teacher or students. Once the footage reaches the newsroom, it is drastically cut and edited to fit the brief time segment (10 seconds or so) allotted to the story.

Had the scene with the principal been a live insert, you would have had to expand the system still further, with a portable transmitter to transport the signal from the field to the station. The ENG signal is often transmitted live to the studio.

If the field production is not for news or is more elaborate, you are engaged in EFP (Electronic Field Production). Sometimes field cameras that feed their output to separate VTRs (Video Tape Recorders) are used. Big remotes are field productions whose production system is similar to the studio’s, except that cameras are placed on location and the control room is housed in a large truck trailer.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

ENG SYSTEM
The basic ENG system consist of a camcorder and a microphone. The camcorder includes all video and audio quality controls as well as video- and audio-recording facilities. A portable transmitter is necessary to send a live field pickup to the studio.

EFP SYSTEM
The EFP system is similar to that for ENG, but may use more than one camera to feed the output to separate VTRs.

PRODUCTION ELEMENTS
With the expanded television system in mind, we briefly explore eight basic production elements: (1) the camera, (2) lighting, (3) audio, (4) switching, (5) videotape recording, (6) tapeless system, (7) postproduction editing, and (8) special effects. When learning about television production, always try to see each piece of equipment and its operation within the larger context of the television system, that is, in relation to all the other pieces of equipment that are used and the people who use them – the production personnel. It is, after all, the skilled and prudent use of the television equipment by the production team, and not simply the smooth interaction of the machines, that gives the system its value.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

CAMERA

The most obvious production element – the camera – comes in all sizes and configurations. Some cameras are so small that they fit easily into your coat pocket, whereas others are so heavy that you have to strain yourself to lift them onto a camera mount. The camera mount enables the operator to move heavy camera/lens/teleprompter assembly on the studio floor with relative ease. Portable cameras are often used for ENG and EFP.

Many ENG/EFP cameras are camcorders that combine the camera and the videotape recorder in one unit, much like popular consumer models. The ENG/EFP camcorders, however, are of higher quality and cost considerably more. It is often the high-quality lens that distinguishes a professional ENG/EFP camera from a high-end consumer model. Some ENG/EFP cameras are built so that they can “dock” with a videotape recorder, a digital disc, or hard drive recording unit; such units are simply plugged into the back of the camera to form a camcorder. Regardless of whether the camcorder is analog or digital, its operational features are basically identical.

The studio television camera has three fundamental parts; the lens, the camera itself, and the viewfinder.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

The lens In all photography (meaning “writing with light”), the lens selects part of the visible environmental and produces a small optical images of it. In standard still and movie cameras, the image is then projected onto film; in digital still cameras and television cameras, it is projected onto the imaging device, which converts the light from the optical image into an electrical signal. All television cameras have a zoom lens, which allows you to smoothly and continuously change from a long shot (showing a wide vista) to a close-up view without moving either the camera or the object you are photographing.

The camera itself The camera is principally designed to convert the optical image as projected by the lens into an electrical signal—the video signal. As mentioned earlier, the major conversion element is the imaging device a small electronic chip called the CCD (charge-coupled device). It responds to light that resembles a light meter. When the CCD receives a large amount of light, it produces a strong video signal (just as the needle of a light meter goes way up); when it receives faint light, it produces a weak signal (just as the light meter needle barely moves from its original position). Other optical and electronic components enable the camera to reproduce the colors and the light and dark variations of the actual scene as accurately as possible, as well as to amplify the relatively weak video signal so that it can be sent to the camera control unit without getting lost along the way. For both analog and digital cameras, the basic imaging devices are the same.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

**The viewfinder** The viewfinder is a small television set mounted on the camera that shows what the camera is seeing. Most viewfinders of professional cameras are monochrome, which means that the display is in black and white. Many consumer camcorders and some high-quality studio cameras, on the other hand, have color viewfinders, so you can see the color pictures that the camera delivers. Generally, black-and-white viewfinders show more picture detail than color displays do, which makes it easier to achieve sharp focus.

**Mounting Equipment** Portable cameras and camcorders are resigned to rest more or less comfortably on your shoulder. But even a small, handheld camcorder can get quite heavy when you operate it for prolonged periods of time. In such cases a tripod not only relieves you of having to carry the camera but also ensures steady pictures. The heavy studio cameras also need mounts; these range from tripods, similar to those used for ENG/EFP cameras, to large cranes. The most common studio camera mount is the studio pedestal, which lets you raise and lower the camera and move it smoothly across the studio floor while it is “hot,” that is, on the air. Some news studios use robotic cameras that are remotely controlled via computer by a single operator in the studio control room. Because high-quality cameras can be relatively small and light, such robotic systems have become quite popular in newsrooms.
LIGHTING

Like the human eye, the camera cannot see well without a certain amount of light. Because it is not objects we actually see but the light reflected off of them, manipulating the light falling on the objects influences the way we perceive them on-screen. Such manipulation is also called lighting.

Lighting has four broad purposes: (1) to provide the television camera with adequate illumination for technically acceptable pictures; (2) to tell us what the objects shown on-screen actually look like; (3) to show us where the objects are in relation to one another and to their immediate environment, and when the event is taking place in terms of time of day or season; and (4) to establish the general mood of the event.

Types of illumination All television lighting basically involves two types of illumination: directional and diffused. Directional light has a sharp beam and produces harsh shadows. You can aim the light beam to illuminate a precise area. A flashlight and car headlights produce directional light. Diffused light has a wide, indistinct beam that illuminates a relatively large area and produces soft, translucent shadows. The fluorescent lamps in a department store produce diffused lighting.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

Studio lighting consists of carefully controlling light and shadow areas. The lighting requirements for electronic field production are usually quite different from those for studio work. In electronic news gathering, you work mostly with available light or occasionally with a single lighting instrument that gives just enough illumination for the camera to record and event relatively close to the camera. For EFP you also use available light, especially when shooting outdoors, or highly diffused light that provides optimal visibility indoors. Some field production such as documentaries or dramatic scenes, require careful interior lighting that resembles studio lighting techniques. The difference is that the location lighting for EFP is done with portable lighting instruments rather than with studio lights, which are more or less permanently installed.

**Lighting instruments** The lighting instruments that produce directional light are called spotlights, and the ones that produce diffused light are called floodlights. In the television studio, the various types of spotlights and floodlights are usually suspended from the ceiling in a lighting grid.
Studio lights are much too heavy and bulky to be used outside the studio. Most EFPs use portable lighting packages that consist of several small, highly efficient instruments that can be plugged into ordinary electrical outlets. There are also larger fluorescent banks for large-area or virtually shadowless lighting. Most portable instruments can either be mounted on collapsible floor stands or clipped onto doors, windowsills, or furniture. These instruments generally operate as floodlights, but they can be adjusted to function as spotlights as well. To obtain more directional control, EFP lighting packages include a number or small spotlights, which can be diffused with a collapsible diffusion tent, often called soft box.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

Lighting techniques  All television lighting is based on a simple principle: use some instruments (usually spotlights and floodlights) to illuminate specific areas, soften shadows, and bring the overall lighting on a scene to an intensity level at which the cameras can generate optimal pictures. In general, television lighting has less contrast between light and shadow areas than do film and theater lighting. Diffused light is therefore used extensively in television lighting, especially on news and interview sets, for game shows and situation comedies, and in many field productions.
Although the television does not include audio, the sound portion of a television show is never the less one of its most important elements. Television audio not only communicates precise information but also contributes greatly to the mood and the atmosphere of a scene. If you were to turn off the audio during a newscast, even the best news anchors would have difficulty communicating their stories through facial expressions, graphics, and video images alone. The aesthetic function of sound (to make us perceive an event or feel in a particular way) becomes obvious when you listen to the background sounds during a crime show, for example. The squealing tiers during a high-speed chase are real enough, but the rhythmically fast, exciting chase background music that accompanies the scene is definitely artificial. After all, the getaway car and the police care are not followed in real life by a third vehicle with musicians playing the background music. But we have grown so accustomed to such devices that we probably would perceive the scene as less exciting if the music were missing.

The various audio production elements are microphones, ENG/EFP and studio sound control equipment and sound recording and playback devices.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

Microphones  All microphones convert sound waves into electric energy— the audio signals. The sound signal are amplified and sent to the loudspeaker, which reconverts them into audible sound. The myriad microphones available today are designed to perform different tasks. Picking up a newscaster’s voice, capturing the sound of a tennis match, and recording rock concert—all may require different microphones or microphone sets.

ENG/EFP sound control equipment  In ENG the audio is normally controlled by the camera operator, who wears a small earphone that carries the incoming sound. Because the camera operator is busy running the camera, the sound controls on the camcorder are often switched to the automatic setting. In the more critical EFP, the volume of incoming sound is usually controlled by a portable mixer and recorded not only on videotape but also on a portable audiotape recorder.
Studio sound control equipment  The audio console is used to control the sounds of a program. At the audio console, you can (1) select a specific microphone or other sound input, (2) amplify a weak signal from a microphone or other audio source for further processing, (3) control the volume and the quality of the sound sources.

Recall the example of the news anchor introducing a videotape of the principal and visitors at the new computer lab. The first two audio inputs come from the signals of the two anchors’ microphones. Because the principal is busy escorting the visitors into the room, one of the news anchors talks over the initial part of the videotape insert. To convey a sense of actuality, you can mix under the anchor’s narration the actual sounds on the videotape –the excited voices of the parents, a question or comment by one of the reporters, and the occasional laughter of the students. Then, when the principal finally begins to speak, you increase the volume of the videotape sound track and switch off both anchors’ microphones.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

Sound recording and playback devices  Even when an event is recorded on videotape for postproduction, its sounds are usually recorded at the same time as the picture. In ENG the pictures, the reporter’s voice, and the ambient sounds are picked up and recorded simultaneously. In EEP most speech sounds, such as an interviewer’s questions and the interviewee’s answers, are recorded on location with the picture. Some sounds, such as musical bridges and a narrator’s voice-over, are usually added in postproduction. But even in more-complicated studio productions such as soap operas, the background music and the sound effects are often added during the live pickup of the actors’ dialogue.

In large and complex studio productions in which a single camera shoots a scene piecemeal, much in the way films are made, the audio track is subjected to much manipulation in postproduction. The sounds of explosions, sirens, and car crashes, for example, are normally dubbed in (added) during the postproduction sessions. Even parts of the original dialogue are occasionally re-created in the studio.

Prerecorded sound, such as music, is usually played back from various digital storage devices such as digital audiotape (DAT), compact discs (CDs), and digital computer disks. Various compression techniques allow a great amount of such audio information to be recorded digitally without the need for excessive storage space.
ENG, EFP and Big Remotes

When a television production happens outside the studio, we call it a field production. We normally distinguish among electronic news gathering (ENG) that covers daily news events, electronic field production (EFP) that deals with smaller scheduled events, and big remotes that are done for major events, such as sports, parades, and political conventions.

There are advantages to taking a production out of the studio and into the field:

• You can place or observe an event in its real setting or select a specific setting for a fictional event.
• You have an unlimited number and a variety of highly realistic settings to choose from.
• You can use available light and background sounds so long as they accomplish your technical and aesthetic production requirements.
• You can save on production people and equipment because many EFP productions require less equipment and crew than similar studio productions (unless you do a complex EFP or a big remote).
• You avoid considerable rental costs for studio use and, if you work for a station, studio scheduling problems.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

There are disadvantages as well:
• You do not have the production control the studio affords. Good lighting is often difficult to achieve in the field, both in indoor and outdoor locations, as is high-quality audio.
• On outdoor shoots the weather always presents a hazard. For example, rain or snow can cause serious delays simply because it is too wet or too cold to shoot outside. A few clouds may give you considerable continuity problems when the preceding takes showed clear skies.
• You are always location dependant, which means that some locations require the close cooperation of non-production people. For example, if you shot on a busy downtown street, you will need the help of the police to control traffic and onlookers.
• When shooting on city, county, or federal property, you may need a permit from these agencies plus additional insurance stipulated by them.
• Field productions also normally require crew travel and lodging as well as equipment transportation.

As a television professional, you need to cope with these disadvantages. After all, you can’t squeeze a football field into a studio. With ENG and relatively simple EFP, the production efficiency of shooting in the field usually outweighs the lack of production control.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

ELECTRONIC NEWS GATHERING
Electronic news gathering is the most flexible remote operation. One person with a camcorder can handle a complete ENG assignment. Even if the signal must be relayed back to the station or transmitter, ENG requires only a fraction of the equipment and the people of a big remote. Sometimes the shooter or videographer (news camera operator), will also take care of the signal feed from the news vehicle to the station.

ENG PRODUCTION FEATURES
The major production features of ENG are the readiness with which you can respond to an event the mobility possible in the coverage of an event, and the flexibility of ENG equipment and people. Because ENG equipment is compact and self-contained, you can get to an event and videotape or broadcast it faster than with any other type of television equipment. An important operational difference between ENG and EFP or big remotes is that ENG requires no preproduction. ENG systems are specifically designed for immediate response to a breaking story. In ENG you exercise no control over the event but merely observe it with your camcorder and microphone as best you can.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

Even when working under extreme conditions and time restrictions, experienced shooters can quickly analyze an event, pick the most important parts of it, and videotape pictures that edit together well. For important events the ENG team normally consists of two people—the videographer and the field reporter. Many ENG stories are covered by a single shooter and narrated later by an anchor during the newscast. ENG equipment can go wherever you go. It can operate in a car, an elevator, a helicopter, or a small kitchen. Your shoulder often substitutes for a heavy tripod.

With ENG equipment you can either videotape an event or transmit it live. Note that “videotaping” includes other camcorder recording methods, such as the video and audio capture on hard drives, optical discs, or flash memory devices (flash drives). The transmission equipment operator can accomplish even a live transmission. Most ENG vehicles (usually vans) are equipped with a microwave transmitter, which, when extended, can establish a transmission link from the remote location to the station. When doing a live transmission, you connect the camera cable to the microwave transmitter. You can also use such a microwave link to quickly transmit to the station the uncut videotape directly from the camcorder video recorder or the recorder in the ENG van.
SATELLITE UPLINK
If you cannot establish a signal connection between your ENG location and the station, you need to request a satellite uplink van. This van looks like a small remote truck and contains computer assisted uplink equipment and, when used for news, one or two VTRs as well as cuts-only editing equipment. The VTRs can record the camera output and play back a rough cut or even unedited news videotapes for immediate unlinking.

News people prefer uplinking “hot” video recordings (videotaped or disk-captured moments before the transmission) to live transmission because it permits repeated transmissions in case the satellite feed is temporarily interrupted or lost altogether. To further safeguard against signal loss, two VTRs or disk recorders are sometimes used for the recording and playback of the same news story if something goes wrong with one machine, you can quickly switch over to the next for the same material.

Such uplinks are pressed into service whenever big and especially newsworthy events are scheduled, such as a presidential election, a summit meeting of heads of state, a high-profile criminal trial, or the world soccer finals. But the uplink truck is also used locally for the distribution of news stories, national and international teleconferencing, or whenever a signal cannot be sent readily by microwave or cable.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

ELECTRONIC FIELD PRODUCTION

As you already know, EFP uses both ENG and studio techniques. From ENG it borrows its mobility and flexibility; from the studio it borrows its production care and quality control. The following discussion of some fundamental steps of preproduction, production, and postproduction in the field assumes that you are still function as the director. This way you have to deal with production detail that is important for each member of the EFP team, regardless of the specific jobs assigned.

PREPRODUCTION

Compared with ENG in which you simply respond to a situation, EFP requires careful planning. Recall that the first step in any preproduction activity is to translate the process message into the most effective and efficient production method—whether to shot it indoors or outdoors, single or multicamera, in the normal sequence of events or shot-by-shot. The second step is to translate the chosen production method into specific medium requirements—equipment and people. Assuming that you have practiced this translation of process message into production requirements we jump to the actual preproduction activities (1) location survey, (2) initial production meeting, and (3) field production time line.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

**Location survey** To get to know the environment in which the production will take place, make an accurate location sketch – a map of the locale of a remote telecast. For an indoor remote, the sketch shows the room dimensions and the furniture and window locations. For an outdoor remote, it indicates the location of buildings, the EFP vehicle, power sources, and the sun during the time of the telecast.

To refresh your memory, take another look at the floor plan/escape route for your school/classroom. Your location sketch should give important information about lighting and audio requirements, camera positions, and shooting sequences. Although technical preparations may not be your immediate concern, check on the availability of power (wall outlets), the acoustics (small room, reflective walls, and traffic noise from nearby freeway), and potential lighting problems (large windows). (Location surveys are discussed further in the context of big remotes later in this section.)

Ask the producer whether he or she has secured accommodations, shooting permits, parking, and food for talent and crew. If the production is literally in a field, are the most basic conveniences available?
Initial Production meeting

The initial production meeting involves all key personnel, including the PA (production assistant), the floor manager, and the crew chief or camera operator. For more-complex field productions that involve several indoor locations, you may want to include the LD (lighting director). At a minimum you should meet with the PA (who may double as the audio/VTR operator) and the camera operator. Explain the process message and what you hope to accomplish. Distribute the location sketch and discuss the major production steps.

It is critical that everyone knows the exact location of the production and how to get there. Can everyone fit into the EFP van? Who is riding with whom? Who needs to come first to the station for equipment check-out, and who will go directly to the location? Who will drive the van? Hand out the time line and ask the PA to distribute it (via fax and/or e-mail) to all other crewmembers who may not be at the meeting. As you can see, transportation to and from the location is an essential scheduling issue. If the field production is outdoors, what do you do in case of rain or snow? Always have an alternate time line ready.
# ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

**Field production time line**  
A shooting schedule for a fairly elaborate field production may look like this:

<table>
<thead>
<tr>
<th>TIME LINE FIELD PRODUCTION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>7:30-8:15 a.m.</strong></td>
<td>Equipment Check-out</td>
</tr>
<tr>
<td><strong>8:15 a.m.</strong></td>
<td>Departure</td>
</tr>
<tr>
<td><strong>9:15 a.m.</strong></td>
<td>Estimated arrival time.</td>
</tr>
<tr>
<td><strong>9:30-10:00 a.m.</strong></td>
<td>Production meeting with talent and crew</td>
</tr>
<tr>
<td><strong>10:00-11:00 a.m.</strong></td>
<td>Technical setup</td>
</tr>
<tr>
<td><strong>11:00-11:30 a.m.</strong></td>
<td>Lunch</td>
</tr>
<tr>
<td><strong>11:30 a.m.-12:00 p.m.</strong></td>
<td>Technical and talent walk-through</td>
</tr>
<tr>
<td><strong>12:00 to 12:20 p.m.</strong></td>
<td>Notes and reset</td>
</tr>
<tr>
<td><strong>12:20-12:30 p.m.</strong></td>
<td>Break</td>
</tr>
<tr>
<td><strong>12:30-1:00 p.m.</strong></td>
<td>Segment 1 tape</td>
</tr>
<tr>
<td><strong>1:00-1:15 p.m.</strong></td>
<td>Notes and reset for segment 2</td>
</tr>
<tr>
<td><strong>1:15-1:45 p.m.</strong></td>
<td>Segment 2 tape</td>
</tr>
<tr>
<td><strong>2:40-3:00 p.m.</strong></td>
<td>Spill</td>
</tr>
<tr>
<td><strong>3:00-3:30 p.m.</strong></td>
<td>Strike</td>
</tr>
<tr>
<td><strong>3:30 p.m.</strong></td>
<td>Departure</td>
</tr>
<tr>
<td><strong>4:30 p.m.</strong></td>
<td>Estimated arrival time at station</td>
</tr>
<tr>
<td><strong>4:30-4:45 p.m.</strong></td>
<td>Equipment check in</td>
</tr>
</tbody>
</table>
PRODUCTION: EQUIPMENT CHECK

Again, apprise the crew of the schedule and the aim of the production. Go over the time line and the rundown sheet of the major locations and taping sessions. Be extra careful when loading the equipment. Unlike studio productions where all the equipment is close at hand. In field productions you need to bring everything to the location. Even if you have done the same EFP a dozen times, always use and equipment checklist. A wrong cable or adapter can cause undue delays or even the cancellation of the entire production.

Before loading equipment onto a vehicle, check each item to see that it works properly. At a minimum do a test recording of picture and sound before leaving for the location shoot.

Equipment checklist  The following equipment checklist is intended as a general guide and may not include all the items you need to take along. Depending on the relative complexity of the EFP, you may need considerably less or more than the items listed.
Cameras. Field camera or camcorders? Have they been checked out? Do you have the appropriate lenses and lens attachments (usually filters), if any? What camera mounts do you need: tripods, tripod dollies, portable pedestals, clamps, steadicam mount, high hats, beanbags, or portable jip arms? Do you have enough batteries? Are they fully charged? Do they fit the specific camcorders you use in the EFP?

Video recorders and recording media. If you use field cameras instead of camcorders, you need to take one or more VTRs or disk recorders. Do you have the proper videocassettes for the VTRs? Take plenty of cassettes along. Check that the actual tape length matches the label on the box. When you think you have enough tape, add two more cassettes for good measure. Do the cables fit the jacks on the recorder and the ENG/EFP camera?
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

Monitor, RCU, and scopes. You need a monitor for playback or checking the camera’s shots. If the monitor is battery-powered, do you have enough batteries? If you do a multicamera EFP with a switcher, each camera input needs a separate preview monitor. If you have a narrator describing the action, you need a separate monitor for him or her. In critical (film-style) field productions for which you use a single high-quality camera, you need additional equipment: an RCU (remote control unit) and test equipment to enable you to adjust the camera for optimal performance; a waveform monitor (oscilloscope) to help you adjust the brightness (keeping the white and black levels within tolerable limits); and a vector scope (color control) to help adjust the camera so that it produces true colors.

Audio. If you have not checked out the acoustics of the location, take several types of mics. Check your wireless lavaliere. Do you have enough batteries for the wireless mic transmitters? Do the portable mics fit the channel frequency of the receiver? All remote mics, including the lavaliere, should have windscreens. Shotgun mics need additional wind protectors. Choose the most appropriate mounting equipment, such as clamps, stands, and fishpoles. Do you need a small field mixer? Does it work properly? If you use a separate audio recorder, check it out before taking it on location. Do you have enough videocassettes for the whole production? Don’t forget headsets for the fishpole operator and the audio-recording technician.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

- Power supply. Do you have the right batteries for the monitors, camcorders or field cameras, and audio equipment? Are they fully charged? If using AC, do you have the right AC/DC adapters? Do you have enough AC extension cords to reach the AC outlet? Unless battery driven, you also need AC power and extension cords for the monitors. Take a few power strips along, but be careful not to overload the circuits.

- Cables and connectors. Do you have enough camera cables, especially if there is a long run between the camera and the RCU? Are there enough coax and AC cables for monitor feeds? Always take a sufficient amount of mic cables along, even if you plan to use wireless mics. The mic cables may save a whole production day if the wireless system breaks down or is unstable on location. Do you have the right connectors for the mic cables and jacks (usually XLR connectors, but sometimes RCA phono)? Bring some adapters for video and audio cables (BNC to RCA phono and XLR to RCA phono and vice versa). Although you should avoid adapters as much as possible (they are always a potential trouble spot), bring some along that fit the cables and a variety of input jacks, just to be safe.
Lighting. You can light most interiors with portable lighting instruments. Bring several lighting kits. Check that the kits actually contain the normal complements of lights, stands, and accessories. Do the lights work? Always pack a few spare lamps. Do the lamps actually fit the lighting instruments used? Do they burn with the desired color temperature (3,200K or 5,600K)? Do you have enough reflectors (white foam core), umbrella reflectors, diffusion material (scrims and screens), and color gels for regulating color temperature? The color gels most often needed are the amber or light orange ones for lowering eh color temperature and the light-blue ones for raising it.

If there are windows to contend with, you may need large sheets of neutral density (ND) filters (that cut down the light without changing the color temperature) or amber color media to cover the windows and thus lower the color temperature. Just to be safe, take some muslin along to block unwanted light that may enter through an off camera window, and a black cloth to cut down unwanted reflections.

Other important items to take along are: a light meter, light stands and clamps, sandbags to secure the portable light stands, some pieces of 1x3 lumber to construct a light bridge for back lights, a roll of aluminum foil for heat shields, extra barn doors, flags, and a dozen or so wood clothespins to attach scrims or color gels to barn doors.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

Intercom. If the single-camera EFP is taking place in a confined area, you don’t need elaborate intercom systems; you can call your shots right from the production area. But if the event covers a large outdoor area, you need a small power megaphone and walkie-talkies and cellular phones to communicate with the widely dispersed crew and the station, if necessary. IF you use the multicamera and switcher system fro a live or live-on-tape pickup, such as for the high-school state championship basketball game, you need headsets and intercom (often regular audio) cables.

Miscellaneous. There are a few more items that are often needed for a field production: extra script and time lines; field log sheets; slate and dry-erase markers; regular rain umbrellas and “raincoats” (plastic covers) for cameras; star filter and fog filters, if any; white cards for white balancing; a teleprompter, if applicable; blank cue cards or large newsprint pad and marker; an easel; and several rolls of gaffer’s tape and masking tape. You also need white chalk, more sandbags, wood clothespins, rope, makeup kit and bottled water, towels, flashlights, and a first-aid kit.
PRODUCTION SETUP

Once everyone knows what is supposed to happen, the setup will be relatively smooth and free of confusion. Although as director you may not be responsible for the technical setup, you should watch carefully that the equipment is put in the right places.

For example, when shooting indoors, will the lights be out of camera range? Are they far enough away from combustible material (especially curtains) and properly insulated (with aluminum foil, for example)? Are the back lights high enough so that they will be out of the shot? Is there a window in the background that might cause lighting problems? Does the room look too cluttered? Too clean? Are there any particular audio problems you can foresee? If the talent wears a wired lavaliere mic, does the mic cord restrict talent mobility? If you use a shotgun mic, can the fishpole operator get close enough to the talent over furniture? Are pictures hung where the camera can see them? Look behind the talent to see whether the background will cause any problems (such as lamps or plants seeming to extend from the talent’s head).
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

When outdoors check for obvious obstacles that may be in the way of the camera, fishpole operators, and talent, look past shooting location to see whether the background fits the scene. Are there bushes, trees, or telephone poles that may, again, appear to extend from the talent’s head? Large billboards are a constant background hazard. What are the potential, audio hazards? Although the country road may be quiet now, will there be traffic at certain times? Are there any factory whistles that may go off in the middle of your scene?

PRODUCTIN: REHEARSALS

Most often your rehearsals are limited to a quick walkthrough. But you may need more rehearsals if the EFP requires the interaction of more than one or two persons.

Walk-through Before you start with the actual rehearsal and taping, you should have a brief walk-through first with the crew and then with the talent to explain the major and principal actions. In relatively simple productions, you can combine the technical and talent walk-throughs. The more thorough you are in explaining the action during the walk-throughs, the more efficient the actual videotaping will be. Have the PA follow you and write down all major and minor production problems that need to be solved.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

Always follow the walk-through with the notes session, then have the crew take care of the remaining problems. Don’t forget to give the talent and crew a short break before starting with the rehearsal and taping session.

**Rehearsal** As pointed out earlier, single-camera field directing has its own rehearsal technique. Basically, you rehearse each take immediately before videotaping it. You walk the talent and the camera and fishpole operators through the take, explaining what they should and should not do. Videotape some of the critical scenes and watch and listen to the playback. You may want to change the mic or mic position for a better, less noisy pickup.

**PRODUCTION: VIDEOTAPING**

Just before the actual taping, ask the director of photography (DP) and/or the camera operator whether the camera is properly white-balanced for the scene location. Sometimes clouds or fog move in between the rehearsal and the taping, changing the color temperature of the light. Slate all takes and have the PA or the VTR operator record them on the field log.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

Watch the background action as well as the main foreground action. For example, curious onlookers may suddenly appear out of nowhere and get in your shot, or the talent may stop her action exactly in line with a distant fountain that then appears to spring out of her head. Listen carefully to the various foreground and background sounds. During the take. Do not interrupt the taping because there was a faint airplane noise. Most likely, such noise will get buried by the main dialogue or the additional sounds added in postproduction (such as music), But the noise of a nearby helicopter that interrupts a civil War scene definitely calls for a retake.

At the end of each take, have the talent stand quietly and let the camera record a few seconds of additional material. This cushion will be of great help to the editor in postproduction. Videotape some usable cutaways and record location sounds and room ambience for each location. The recorded “silence” will help bridge possible audio drops at edit points in postproduction.

When you feel that you have a series of good takes play them back on the field monitor to see whether they are indeed acceptable for postproduction. If you detect gross problems, you can still do some retakes before moving on to the next scene or location.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

PRODUCTION: STRIKE AND EQUIPMENT CHECK

Have the location reset (furniture, curtains, and the like) the way you found it and the place cleaned before you leave. Pick up all scripts, shot sheets, and log sheets. Do not leave pieces of gaffer’s tape stuck on floors, doors, or walls, and take away your trash. When loading the EFP vehicle, the floor manager, crew chief, or PA should run down the equipment checklist to see that everything is back in the vehicle before leaving or changing locations. Check that the source tapes are all properly labeled and – most important – loaded onto the vehicle. Some directors insist on carrying the source tapes personally.

POSTPRODUCTION

EFP postproduction activities are, for all practical purposes, identical to those of single-camera studio productions: making protection copies and window dubs, logging all takes on the source tapes, capturing the various takes on the hard drive of your editing computer, doing a rough-cut, and finally doing an on-line edit that is transferred to the edit master tape.
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

BIG REMOTES

A big remote, or simply remote, is done to televise live or to record live-on-tape large, scheduled events that have not been staged specifically for television, such as sporting events, parades, or political gatherings. All big remotes use high-quality field cameras (studio cameras with high zoom ratio lenses) in key positions, a number of ENG/EFP cameras, and an extensive audio setup. The cameras and the various audio elements are coordinated from a mobile control center—the remote truck. Remote trucks are usually powered by a portable generator, with a second one standing by in case the first one fails. If there is enough power available at the remote site, the truck is connected to the available power, with a single generator serving as backup.

The remote truck represents a compact studio control room and equipment room. It contains the following control centers:

• Program control center, also called production, with preview and line monitors, a switcher with special effects, a character generator, and various intercom effects, a character generator, and various intercom systems (P.L., P.A., and elaborate I.F.B. systems)
ELECTRONIC NEWS GATHERING (ENG) AND ELECTRONIC FIELD PRODUCTION (EFP)

• Audio Control center with a fairly large audio console, ATRs and DATs, other digital recording media, monitor speakers, and intercom systems.

• Video-recording center with several high-quality VTRs and/or digital recording devices that can handle regular recordings, do instant replays, and play in slow-motion and freeze-frame modes.

• Technical Center with CCUs (camera control units), line monitors, patchboards, a generator, and signal transmission equipment.

In very big remotes, one or more additional trailers may be used for supplemental productions and control equipment.

Because the telecast happens away from the studio some production procedures are quite different from those for studio productions. We therefore examine the following production aspects: (1) Preproduction-The remote survey and (2) Production- equipment setup and operation, as well as floor manager and talent procedures.
PREPRODUCTION: THE REMOTE SURVEY

Like any other scheduled production, a big remote requires through preparation—only more so. Once problem with preparing for big remotes is that the event you cover is normally a onetime happening that you cannot rehearse. It would be ridiculous to ask two national hockey teams to repeat the whole game for you, or to ask political leaders to restate their lively debate verbatim just so you can have your rehearsal. A remote of an award ceremony, however, allows some limited rehearsals; you can rehearse with stand-ins filling in for the master of ceremonies and the possible winners. Still, you have no control over the event itself but must follow it as best you can. Your production preparations must take these, and several other such considerations, into account. Yet another problem is that you can truck only the control room and the technical facilities to the site—not the studio itself. Cameras, microphones, and often lighting need to be brought to the remote location and made operational.

One of the key preparations is the remote survey. Many of the survey items for big remotes are equally applicable for various electronic field production, such as a visit to a car manufacturing plant or an MTV segment. As the name implies, a remote survey, or site survey is a preproduction investigation of the location premises and the event circumstances. It should provide you with answers to some key questions about the nature of the event and the technical facilities necessary to televise it.
STUDY QUESTIONS

Directions: On your own paper WRITE the following questions and their answers.
1. Describe the ENG system.
2. Describe the EFP system.
3. What types of cameras are often used for ENG and EFP and why?
4. What is the most common studio camera mount and would you use it in ENG/EFP situations? Why or why not?
5. What is the difference between directional and diffused lighting.
6. How is lighting used in ENG and EFP different from studio lighting and why?
7. What are the lighting instruments called that produce diffused and directional lighting?
8. What is an important operational difference between EFP and ENG?
9. What is the difference between a normal ENG van and a satellite uplink van?
10. What is a location sketch, what does it include, and why is it important?
STUDY QUESTIONS

Directions: On your own paper WRITE the following questions and their answers.
11. What is an RCU?
12. What are some important “scopes” and what are they used for?
13. Why is it important to use an equipment check list EVERY TIME you go on and EFP shoot, what type of things should be on your checklist?
14. One of the considerations that may make or break your video is lighting. What are some equipment and materials that you can use to help you get the right light and how do they work?
15. What is the difference between the setup of a typical studio and a big remote studio setup?
16. What are the major criteria for doing ENG, EFP, or big remotes? How do these three production methods differ technically and operationally? Where do they overlap?
17. If we can do (occasionally excellent) productions with one person using a single camcorder and mic, why do we need large remote trucks?
18. Considering he flexibility and relative production ease of EFP, do we still need television studios with Multicamera setups? Why? For example, if your producer tells you not to bring “the street corner into the studio if you can go to the street corner,” what is your reaction? How do you justify a realistic setting in the studio when you can go to the actual setting on location?
19. Why are remote surveys so important in EFP/big remote preproduction? What are the most important survey items?
20. What should a preproduction EFP checklist contain?
VOCABULARY/TERMINOLOGY

Directions: On your own paper WRITE the Terms and their definitions as they apply to this section.

1. Electronic News Gathering (ENG)
2. Electronic Field Production (EFP)
3. VTR
4. Production Personnel
5. Camera
6. Camera Mount
7. Photography
8. Lens
9. Zoon lens
10. Charge Coupled Device (CCD)
11. Viewfinder

12. Tripod
13. Lighting
14. Soft box
15. Automatic
16. mixer
17. Audio console
18. Dubbed in
19. Field production
20. Big remotes
21. Shooter/videographer
22. Scrims
23. P.L.
24. P.A.
25. I.F.B
26. ATRs
27. DATs
PROJECTS

In this class you are expected to complete 3 major categories of projects.

1. The school news show (1 show is due every 2 weeks)
2. Adobe Premiere Tutorials (1st 9 weeks)
3. Adobe After Effects Tutorials (2nd 9 weeks)

*Students will work on tutorials with a partner and they will work at their own pace, but all tutorials are expected to be completed.
PROJECT

CREATING SEHS NEWS SHOW

In this project you will have 9 school days (unless we have a holiday) to produce a completed SEHS Southside News Show. You will present your show in class on Friday Every 2 weeks. Each news show will be uploaded to the school website by midnight on the Thursday that the news show is due and the show must be viewable on the school website for everyone to see on Friday. NO EXCEPTIONS!

You will work with a partner to create a piece of the news show. Each piece of the news show will be assembled into a complete show.

You completed show must be between 10 and 15 minutes in length.

When leaving the classroom, you must tell Mr. Keith exactly where you will be and you may only be gone for a maximum of 20 minutes.

When you finish your piece, you should help any other group that is not yet finished. This is a TEAM project and the entire class will receive the same grade. If the news show is not finished and posted to the school website by the deadline everyone in the class will receive a grade of 50 for that particular news show.

GOOD LUCK AND HAVE FUN!
PROJECT

SEHS NEWS SHOW SPOT ASSIGNMENTS

Group 1: Anchors (2) Responsible for anchoring the news show, writing scripts, creating cue cards if needed, acting as producers for entire show.

Group 2: Editing (2) Responsible for editing the entire news show together, exporting it to tape, DVD, and/or internet. You must also act as camera men for other groups when they need someone to film their spots. (Must create intro & closing for 1ST News show and it will be used for all future shows)

Group 3: Commercial (2) create a commercial for something in the school.

Group 4: PSA (Public Service Announcement) (2) Create a public service announcement dealing with something important to the students, faculty and staff at the school.

Group 5: Feature Story (2) Create a news story dealing with the most important thing going on at school this week.

Group 6: News Story 2 (2) Create a news story dealing with the second most important thing going on at school this week or that will be coming up soon.
PROJECT

Group 7: Sports (2) Create a highlight spot of all of the sporting events from the previous week and upcoming week.

Group 8: Entertainment & Fashion “STANGTAINMENT” (2) Story dealing with Music, Movies, and Fashion

Group 9: Team of the week (2) Choose a team or club to highlight for the weeks show present them with a certificate & interview them.

Group 10: Faculty Staff Member of the week (2) – Take a vote within your classroom on who should be the faculty/staff member of the week present them with a certificate & interview them.

Group 11: World, National, & State Headlines (2)- Find out what is important to you as students and give a brief update.

Group 12: Producer & Director (2)- Mr. Keith is the executive producer and director, but these two students run the show and are responsible for everyone else’s action during the production of the show. These two students are responsible for creating the script and storyboard and making sure that everyone follow the script and storyboard. These two students are the only ones that can ask Mr. Keith questions about how something should be done.
PROJECT

Group 13: Set design, wardrobe, and make-up (2)- These two students are responsible for creating the backdrop for the set, staging materials coordinating wardrobe for the talent, and applying make-up as needed.

Group 14: Camera and Lighting crew (2) These two students are responsible for all camera and lighting needs.

**Keep in mind that most of these groups may choose to use animation in the production of their pieces.**
PROJECT

SAMPLE SCRIPT
If you put this into a PowerPoint, you can use the computer like a teleprompter and you won’t have to use these papers. You may still want to have the papers lying on your desk just in case there is a computer glitch and your computer/teleprompter doesn’t work.

IT IS VERY IMPORTANT THAT YOU TALK TO EACH ONE OF THE GROUPS THAT ARE CREATING THE STORIES FOR THE SHOW. YOU NEED TO FIND OUT WHAT THEY WILL BE PRESENTING AND HOW THEY WILL BE PRESENTING IT SO THAT YOU CAN MAKE YOUR SCRIPT WORK WITH THE STORIES THAT WILL BE SHOWN.

Remember how you word things. If you are taping part of a show that will air the next day, make sure that you say today instead of tomorrow. It wouldn’t make any sense to people if they were watching a news show on the day of Friday the 13th and you said “tomorrow is going to be Friday the 13th” because you taped the spot on Thursday the 12th.

SOUTHSIDE NEWS 6TH EDITION
ROLL INTRODUCTION FOOTAGE
Anchor 1: Hello and welcome to this 6th edition of the Southside news my name is ____________
Anchor 2: and my name is ____________ and we are your hosts for this weeks show.
I know that everyone loves wearing their uniforms, but let's take a look at the upcoming fashion show where some of our very own students are designing and modeling their own unique styles.

ROLL FASHION SHOW FOOTAGE
Anchor 1: It looks like this year’s fashion show is going to be fabulous! Everyone should really try to get to the fashion show and support such a good cause.

(Story #2 Faculty/Staff Member of the Week) We really do have some hard working teachers at our school. Let's see who our Faculty/Staff Member of the week is this week.

ROLL FACULTY/STAFF MEMBER OF THE WEEK FOOTAGE
Anchor 2: Coach Onarato is really great teacher on and off the field. It is easy to see why he was this week’s choice.

(Commercial) The SEHS school store is one of Southside News’ biggest sponsors. Let's see what they have to offer.

ROLL SCHOOL STORE COMMERCIAL FOOTAGE
Anchor 1: I really need to get into the school store. I didn’t know they had so much to offer!

(Story #3 SEHS Team/Club spotlight) This week we are going to take an inside look at our AFJROTC program. The AFJROTC is this week's SEHS Team of the Week.
PROJECT

ROLL SEHS TEAM/CLUB SPOTLIGHT FOOTAGE
Anchor 2: I’m not sure that the Air Force is for me, but it sounds like those classes are really preparing our students for the armed services.

(Public Service Announcement (PSA)) Did you know that April is Alcohol awareness month? Alcohol and drug related deaths are one of the top killers of high school students. This Public Service Announcement will give us some valuable information to keep us alive and healthy.

ROLL PSA FOOTAGE
Anchor 1: That will definitely make me think twice about messing around with drugs and alcohol.

(Story #4 This week in Sports) We have had some action packed sporting events over the last week or two, let's take a look at some of the highlights and see what's coming up in SEHS Sports.

ROLL THIS WEEK IN SEHS SPORTS FOOTAGE
Anchor 2: Man, can you believe those scores! Looks like we are really dominating!

------------Announcements-------------Check with Mr. Keith or Mrs. Cyndy Hendricks for current announcements-------------
And now, we will turn to the announcements.
Any student that parks in a space that was not assigned to them by SEHS or have not purchased a parking pass will be fined $20.00 each day they are parked illegal.
NO EXCEPTIONS WILL BE MADE!
Anchor 1: Junior dues are now $75. Please see Mrs. Blanks in the front office.
Anchor 2: The competition is on ...ECHS verses SEHS. Which school is the biggest Subway lover? Bring in your lunch card or student ID to any Effingham Subway any day from 2PM to 6PM and receive a 6” Sub for 99 cent. The school that purchases the most will receive a Grand Prize.
Anchor 1: Jean Day Friday, April 25th. All faculty and students, who purchase a Relay for Life T-shirt, will be allowed to wear jeans with their purchased t-shirt on Friday, April 25th. T-shirts are in honor of Mrs. Cathy Leaf. The cost is $15.00. All proceeds go to the American Cancer Society. Friday will be the last day for faculty and students to purchase a t-shirt.
Anchor 2: FFA Members If you would like to fill out the Green Hand, your 1st year award, or chapter farmer or proficiency award, they will be due by March 28th. If you would like to be considered for star green hand or star chapter farmer, see Mr. Mock or Mr. Montford. (Announce until March 28th)
Anchor 1: There will be an FBLA meeting in Mrs. Ross’ room today (3/25/08) at 3:30. All members need to attend.
Anchor 2: “Any rising junior or senior interested in signing up for the work-based learning program for the 2008-2009 school year needs to see Ms. Truluck inside room 300 BEFORE school, AFTER school or in-between classes to pick up an application. Please do not come during class, as applications will not be given out during class. All applications will need to be returned no later than Friday, April 18.” Would you please announce beginning tomorrow and run through Friday, April 11. Thanks.

Anchor 1: Chick-fil-A Biscuits are being sold today for the Relay for Life. All monies raised from this and next week will go to our team for the walk.

Anchor 2: The final deadline for Grad Bash payments is March 30.

Anchor 1: Congratulations to Isaiah Broomfield. He placed 1st in the State Literary Competition in the Boy's Essay.

Anchor 2: Would you like to be part of the Southside News crew, but can’t get into Mr. Keith’s classes due to a schedule conflict? Mr. Keith is looking for creative students who would like to do humorous skits about the school or student life, cartoons, anime, and other stuff as part of our new show called “Southside Stories”. ‘Southside Stories” will be a Saturday Night Live type show. Students will be asked to meet after school on Mondays and Thursdays from 3:30-5:00pm. See Mr. Keith in Room 615 or drop him an email if you are interested.
Anchor 1: This concludes this week’s announcements. If you have an announcement, a good idea for a story that you think should be featured on our show, or if you would like to join TSA or the Video club and help make shows like this one or the new Southside Stories show that will be similar to Saturday Night Live, please see or email Mr. Keith in room 615.
Anchor 2: This has been the 6th edition of the Southside news my name is ____________
Anchor 1: and my name is ______________, thanks for watching.
Anchor 2: See you next time!
ROLL CLOSING