A lab course in media production for secondary school students is described. The objectives of the course are to learn: 1) to utilize different techniques in writing radio and television assignments; 2) to describe the functions of production personnel and equipment; 3) to define the organization of a production facility; 4) to operate audiovisual equipment; and 5) to use different techniques to write, produce and direct complete radio and television programs. The course content includes the study of writing techniques, production facilities, operational organization, and production equipment and techniques; the completion of a production project is also required. A list of 56 teaching strategies designed to achieve course objectives is provided. A glossary and bibliographies of student and teacher resources are included. (PB)
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TELEVISION AND RADIO PROGRAM PRODUCTION

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for the
DIVISION OF INSTRUCTION
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COURSE TITLE: TELEVISION AND RADIO PROGRAM PRODUCTION

COURSE DESCRIPTION: A lab course in which students practice the techniques of writing scripts, broadcasting, editing and producing tapes and videotapes for TV, radio, and PA announcements. Students learn to operate audio-visual equipment.

I. PERFORMANCE OBJECTIVES

A. Given examples of variety in writing techniques for media, the student will utilize these techniques in writing specific radio and television assignments.

B. Given an explanation of the equipment and personnel comprising a production facility, the student will be able to describe the function and/or responsibility of each item or position.

C. Given an explanation of the operational network within a production facility, the student will be able to chart the organization of the operation.

D. Given training in the operation of production equipment, the student will be able to demonstrate performance skills within each production area.

E. Given specific production assignments, the student will demonstrate proficiency in a variety of techniques with production elements.

F. Given the opportunity to work with a production facility, the student will write, produce, and direct a complete radio or television program.
II. COURSE CONTENT

A. Rationale

With the rapid expansion of the communications industry in recent years has also come an increased responsibility to society. Those individuals who enter radio or television broadcasting soon discover they must learn to communicate within the organizational structure as well as with the public. At the same time, the individual who gains a behind-the-scenes acquaintance with a station and its facilities becomes a knowledgeable, critical audience.

Who must ultimately accept responsibility for what is transmitted through radio and television? Obviously both the sender and the receiver must share that responsibility. This course is geared to any individual who wants to play either role in these media.

The lab format provides a down-to-earth introduction to the fundamentals of radio and television broadcasting. The course is designed so that each participant can gain experience in each production area. An appreciation of the creative effort required to produce a quality program will be paralleled by a critical view which, until this experience, did not exist.

B. Range of subject matter

1. Variety in writing techniques
   a. Program types
   b. Blocking of program
   c. Scripting formats
   d. Special effects
   e. Transitions
   f. Continuity
   g. Timing

2. Production facility
   a. Personnel
      (1) Administrative
      (2) Engineering
      (3) Technical
      (4) Production
b. Equipment

(1) Video
(2) Audio
(3) Studio

3. Operational organization

a. Studio production

(1) Producer
(2) Director
(3) Script writer
(4) Technical director
(5) Audio man
(6) Cameramen
(7) Floor manager
(8) Boom man
(9) Projectionist
(10) Video engineer
(11) Master control
(12) Videotape engineer

b. Administrative

(1) Station manager
(2) Program manager
(3) Advertising manager
(4) Production manager
(5) Chief engineer

c. Specialized areas

(1) Traffic
(2) Film
(3) Graphics
(4) Scene shop
(5) Costuming
(6) Make-up
(7) On-camera talent
(8) Off-camera talent

4. Production equipment

a. Switching board
b. Audio board
c. Special effects
d. Microphones
5. Production techniques

a. Announcing
b. Station identification breaks
c. Teasers
d. Camera concepts
   (1) Shot classifications
   (2) Camera movements
   (3) Camera angle
   (4) Field of view
   (5) Camera lenses

e. Cues and directions
f. Visuals
g. Special effects
   (1) Optical
   (2) Chemical
   (3) Mechanical
   (4) Electronic

6. Final production project

a. Planning
b. Production
c. Critique
III. TEACHING STRATEGIES

A. Given examples of variety in writing techniques for media, the student will utilize these techniques in writing specific radio and television assignments.

1. Present the film "Four Ways to Drama." Ask the students to analyze writing techniques used in each treatment of the theme.

2. Have the students adapt a short story or a one-act play for radio or television production.

3. Show pictures or slides to be used for commercials. Have the students write three versions for one commercial, stressing variety.

4. Have the students use the school newspaper as a source for writing a five-minute summary of school news.

5. Have the students write scripts for different types of newscasts, including features on special events, youth in the news, and editorials.

6. Have the students write human interest and feature spots. Stress characterization, originality, and slant.

7. Present a videotape of a television program. Ask students to discuss the use of visuals, movement, music, sound effects, and transitions.

8. Give the students a television script. Have them analyze the following elements in blocking: order of presentation, floor plan, music and sound effects, visuals, movements. (Glossary defines these terms.)

9. Have each student use a poem or musical selection for writing a script which communicates mood, message, and aesthetic values.

10. Have the students watch a wide selection of children's shows aired by local stations. Analyze content, style, treatment, and basic type. Try to determine any common characteristics.
B. **Given** an explanation of the equipment and personnel comprising a production facility, the student will be able to describe the function and/or responsibility of each item or position.

1. Distribute a list of station personnel titles. Have the students discuss the need for the different positions.

2. Show the students pictures or slides of various pieces of equipment such as headphones, television camera, tape deck, tape editor, or audio-tape editor. Have the students keep in their notebook a section giving the name, physical description, and function of each equipment item.

3. Invite a representative of a local radio or television station to explain the responsibilities of that station's personnel.

4. Give each student a check list of station equipment. Have the student find out the function of each item. Possible sources are the library or a local station.

5. Arrange a field trip to a local radio or television station to observe a program in production. Have the students note particularly the functions of the studio crew.

6. Design a set of flashcards for station personnel positions and equipment items. (See II. B. 3.) Have students work in small groups for learning or reviewing sessions.

7. Have the students make charts identifying the personnel and equipment comprising a production facility.

8. Have the students set up a vertical file for publication clippings and pamphlets concerning radio and television equipment. Use these articles for bulletin board displays, review, or research.

9. Present the filmstrip "How Color Television Works." Ask the students to discuss the uses of equipment illustrated.

10. Present the film "Naturally It's FM." Discuss the information on the equipment and its functions.
C. Given an explanation of the operational network within a production facility, the student will be able to chart the organization of the operation.

1. Arrange a field trip to a local radio or television station. Ask students to summarize the operational organization of that particular station.

2. Supply the students with a blank organizational chart and a list of station personnel. Ask the students to discuss the function and responsibilities of each position. Determine its slot on the organizational chart.

3. Have the students study organizational charts from several different stations. Stress the variety of organizational patterns.

4. Ask the students to discuss what elements would determine the operational organization design of a station.

5. Have the students discuss the differences in the organization of a public or community television station and a commercial television station.

6. Ask the students to find the organizational chart for a major television network station. Compare this organization with that of a local television station.

D. Given training in the operation of production equipment, the student will be able to demonstrate performance skills within each production area.

1. Have the students use portable tape recorders to cover a school sports event. Critique the program in class.

2. Have the students tell a story using only sound effects. Example: woman enters kitchen, doors open and close, pots and pans clang, frying pan sizzles, doorbell rings, woman leaves room, sizzling increases, woman runs into kitchen, woman screams.

3. Have the student learn how to spot or "cue up" a record. Learn the same operation for audiotape.
4. Have the student use the switching board, following a given pattern of techniques. Check for proficiency in knowledge of the board and smoothness of operation.

5. Group the students in a round-robin exercise. Have each group complete a check-out in each equipment area.

6. Invite a representative of equipment distributors to demonstrate capabilities of the equipment.

7. Have the students design a situation where a special effect would be desirable. Stress the importance of limited, highly selective use of special effects.

8. Set up a lighting exercise for television production. Have the student practice setting and checking out blacklight, keys, fill, and goboes.

9. Give each student an assignment for audio board operations, including use of live mikes, audiotape, records, and other sources. Practice fading, fading out, segueing, and mixing audio sources.

10. Present the film "Television Lighting." Have the students discuss the procedures illustrated. Ask for a comparison between lighting for television and lighting for stage.

11. Present the film "How Television Works." Lead the students in a discussion on the total television operation.

E. Given specific production assignments, the student will demonstrate proficiency in a variety of techniques with production elements.

1. Have the students build a Bretz box or a Bretz cylinder.

2. Design an audition analysis form. Have the students judge each other, giving immediate feedback to the audition candidate. Write the results on an audition analysis form and file for future casting.

3. Have the students use a stop watch to time each other on the number of words per minute read from script.

4. Have the student practice speaking before a simulated camera situation. Vary the on-camera speaking technique, including memorized speech, cue cards, teleprompter, and script cue outline.
5. Have the students design quiz programs for several subject areas in the school, such as English, social studies, science, foreign language, math, and business education. Critique the format for unity, entertainment, and interest.

6. Present the film "NYU Television Workshop." Have the students discuss production techniques which they might use.

7. Present the four fifteen-minute films entitled "Television Is for You." Have the students analyze the programs for the variety of production techniques as well as content.

8. Show the students a program in which a teaser is used. Ask why such a technique is used. Have the students keep track of programs which they notice begin with a teaser.


10. Present the films "Television Directing," Parts 1 and 2. Have the students discuss the content of the films.

11. Present the film "Staging for Television." Discuss the ideas in the film. Ask the students to compare staging for television with staging for theater.

12. Present the film "Creating Cartoons." Ask the students to design a simple cartoon technique which could be used in television production.

13. Present the film "Simple Hand Puppets." Ask the students to create a puppet show for in-school televising. Example: health program, driver's ed, school election procedures.

F. Given the opportunity to work with a production facility, the student will write, produce, and direct a complete radio or television program.

1. Have a student plan a music program for television.
2. Ask a student to produce a children's puppet program.

3. Use the creative writing class as a source for stories and dramas. Have a student produce the program for television.

4. Have a student present a radio drama version of an important medical subject.

5. Have the students present a school variety show as a group project.

6. Have the students cooperatively design, produce, and present a five-minute school program to be broadcast each day. Arrange a simulcast for both audio and video broadcasting within the school network.
GLOSSARY

ACROSS THE BOARD A program presented five days a week at the same hour.

AD-LIB To make up lines as you go along.

ANGLE SHOT A camera technique usually used for dramatic effect. The subject is shot from an unusual or extreme angle from a side view, a high boom level, or a low boom level.

ASPECT RATIO The 3:4 rectangular shape of the television picture. A requirement of the FCC. Governs pix composition.

BACKDROP An up stage curtain used as a setting for television.

BACKGROUND What is placed behind the people or objects in the foreground in the TV picture. In the audio segment, the sound or music which underlies the main sound or voices.

BAND A range of radio frequencies within two definite limits and used for a definite purpose. The standard broadcast band extends from 550 to 1600 kilocycles.

BATTEN A pipe suspended above the television studio flood and used for hanging lights or scenery. Sometimes called a grid.

BLACK No picture on the television screen.

BLOCKING The process by which the director of a TV program arranges the movements of actors, plots positions on the set, and relates these to camera positions.

BLOOM Glare caused by an object reflecting too much light into the camera.

BOARD The control panels through which the program passes from the studio control board to the master control or the transmitter.

BOOM (n.) Long movable metal arm attached to a stand for easy maneuverability of a microphone. (v.) Vertical movement of the base on which the camera is mounted. May be up or down.

BOOM MICROPHONE A microphone suspended from a boom which can be lowered or raised, extended or retracted by an operator to keep the microphone over the performers as they move about within the set.
BUG Some intermittent trouble in the equipment which is not easily found.

CALL LETTERS The initials assigned by the F.C.C. to identify a station.

CAMERA LEFT A direction that indicates the area to the left of the camera as it faces the set. This would be to the cameraman's left, the performer's right.

CAMERA REHEARSAL A complete performance with the script before the cameras. Purpose is to coordinate and rehearse with studio crew.

CAMERA RIGHT A direction that indicates the area to the right of the camera as it faces the set. This would be to the cameraman's right, the performer's left.

CANS The headphones that are used by those people who must give or receive instructions during a television production session.

CENTER STAGE The middle of the performing area.

CHAIN For camera or film. A complete set of the camera components, including camera, power supply, and control unit.

CHANNEL A band of frequencies assigned to a transmitter. In standard broadcasting the channel is 10 kilocycles wide—5 kilocycles on either side of the carrier frequency. In television the channel is 6 megacycles wide.

CLEAK (adj.) Statement given by the floor manager at the end of the program. Means the studio is off the air. Same signal is used for radio. (v.) The process of obtaining permission to use copyrighted material.

CLEARANCE Permission to use copyrighted material.

CLIP A portion of a film; not the complete film.

CLOSE-UP (CU) A camera view of a subject consisting of a head or head-and-shoulder picture, or a close view of an object.

COAXIAL CABLE A specially designed cable which will carry picture or high-frequency signals.
COLD  The opening of a radio program without using any theme, announcement, or other form of introduction.

CONTINUITY WRITERS  Those who prepare the entire program, including entertainment or dramatic features, commercials, musical introductions, and the listing of music. Everything within the program's time slot.

CONTROL ROOM  The area of a television station in which the director, technical director, and audio man work during the program.

COPY  The written announcement the announcer reads. Also, any portion of the television or radio program that is written word for word.

COVER SHOT  The picture taken by the TV camera which shows the entire set.

CROSS  On-camera talent moves from one part of the set to another.

CUE  A signal given to begin. Also, the final words of one segment which indicate the next segment will soon begin.

CUT  The instantaneous switching from one camera to another. Also the elimination of planned portions of the program.

CYCLORAMA (CYC)  A smooth, rounded backdrop used to include large playing areas for television sets.

DIRECTOR  The person in charge of the program while it is on the air or being videotaped.

DISSOLVE  A control technique by which a picture on a second camera is merged with the picture being televised, so that the second picture comes clearly into view as the original fades.

DOLLY (n.)  A stand on wheels on which the camera or boom is mounted. (v.) To move the camera toward or away from the subject.

DOWNSTAGE  Toward the camera or away from the back wall of the television set.

DROP CARD  A photograph or art work mounted on cardboard.

DROP CARD STAND  A stand on which pictures, charts, maps, and other flat visuals are placed.
DRY RUN  A full rehearsal without the cameras.

EASEL  A stand on which drop cards or objects are placed. A French easel is one which can be tilted or locked in a horizontal position.

FADE  In radio, the decreasing of volume; in TV, the decreasing intensity of the picture until it disappears.

FADING IN  In radio, increasing the volume in such a way that the music, sound, or speech seems to come in gradually; in TV, slowly coming in from a blank screen to a picture.

FEEDBACK  The return of a sound, usually a whistling sound, from a loudspeaker to the microphone in which it originated.

FEEDING  The delivery of a program over a telephone line, either to network or to some other station.

FLAT LIGHT  Lighting a scene for television with overall brightness, as contrasted with the use of modeling lights or highlighting which bring out the contours of actors and objects for dramatic effect.

FOOT-CANDLE  A measure of light intensity. The amount of light from one standard candle, at 1 foot distance, on 1 square foot.

FLOOR MANAGER  A crew member who cues action from the studio floor. He represents the director in the studio.

FLOOR PLAN  A diagram of the set showing the location of all furniture and other props, including flats.

FORMAT  The pattern of a program.

FRAME LEFT  That which is seen on the left side of the picture as seen on the television screen.

FRAME RIGHT  That which is seen on the right side of the picture as seen on the television screen.

GAIN  The control of volume used in transmission.

GOBO  A device used to cast shadow patterns on a TV set wall. Also called a cucalorus or fuddle.

HALO  A flare of black outlining an object which has a great white-black contrast ratio.
ID  Station identification

IRIS  The diaphragm in a lens which controls the amount of light which is allowed to pass through the lens.

JACKS  The sockets into which the plugs of a patch cord are pushed.

KINE  Short for kinescope, the picture tube which transposes electrical impulses into an image in the television receiver.

KINESCOPE  The cathode-ray or picture tube which may be used in television receivers and at monitor positions in control rooms.

KINESCOPE RECORDING  A sound motion picture made from the face of a special kinescope tube.

LEADER  Blank tape at the beginning of an audiotape or videotape segment for cuing purposes or blank film at the beginning of a motion picture.

LEVEL  The amount of volume noted upon the meter of the control board.

LIMBO  The use of a dark background for a TV program. The appearance is that the action is taking place in a void.

LIVE MIKE  Also called a "hot mike." A microphone through which current is flowing.

LIVE  A program which is telecast directly rather than filmed or videotaped and transmitted at a later time.

LOCAL PROGRAM  A program which is aired by the station's own transmitter.

LONG SHOT (LS)  A shot from a distance, giving a wide view of the set.

MASTER CONTROL  The control board to which all studios are connected and from which programs are sent on the transmitter.

MIXER  For audio, the panel for control and blending sound picked up from various sources; for video, panel for blending pictures.
MOBILE UNIT  A truck with all the equipment of a television or radio station which may be driven to the scene to be televised or broadcast. The unit relays picture and sound back to the main transmitter.

MONITOR  Television set used in the studio which shows the program as it is going out over the air or as it is being videotaped.

MONTAGE  In radio, a series of abbreviated scenes and musical bridges which give the effect of time passing; in television, the superimposing of three or more pictures by means of dissolves.

MUSICAL BRIDGE  A musical transition used in a radio play or a production of any sort.

NETWORK  A network program is one that is released over two or more stations connected by telephone lines. A network is a series of stations regularly joined by lines.

OFF MIKE  The actor turns his head away from the mike or steps away from the mike to deliver lines with a special effect.

OFF SET  An area away from the shooting set in a television studio. This area contains drop card stands, easels, stand-by materials, etc.

ON CAMERA  In front of a live camera.

ON MIKE  Speaking directly into the microphone at the proper distance.

ON SET  The small area seen as the stage set for action in a television program.

PANNING  Taking in additional portions of a television scene by turning the camera to left or right in a horizontal plane.

PEDESTAL  A mounting for a camera which makes it possible for the camera to move easily.

PICTURE NOISE  Spots and other irregular patterns on the television receiver picture.

PIX  Abbreviation for picture.
PROPS  Abbreviation for properties. Includes chairs, tables, wall hangings, dishes, statues, models, etc.

REAR SCREEN PROJECTION (RP) A slide projected on a translucent screen and picked up on the opposite side by a live studio camera.

REMOTE A program that is picked up from some point outside the studio.

REVERSE ANGLE SHOT A shot over the shoulder of one actor into the face of another actor.

SCRIPT An outline of the program which includes both what will be seen and what will be heard.

SEGUE (Pronounced seg-way) The transition from one musical selection to another without interruption. An audio dissolve.

SHOT The picture taken by the television camera.

SPONSORED PROGRAM A program which has paid advertising.

STATION BREAK A pause in a network program permitting outlying stations to identify themselves.

STAND BY A direction given to indicate that the program is about to begin.

STRETCH To slow down or use fill material in order to take more time.

STRIKE To remove something from the set or to tear down the entire set.

SUPER (SUPERIMPOSURE, SUPERIMPOSITION) The blending of two TV pictures.

SWITCHER The mechanism used in the TV control room to cut, dissolve, fade, and super.

TALENT Name given to those people who appear in front of the TV camera.

TALLY LIGHT The small red light on the front of the camera indicating when it is on.

TILTING The up and down movement of a camera along the vertical axis using the friction head or cradle mount.
TRANSITION  Moving from one segment of a program to another. A variety of methods can be used to make the transition smooth.

TRUCK  A shot in which the camera and the pedestal move parallel to the action taking place.

ULTRA HIGH FREQUENCY (UHF)  Frequencies of 300 megacycles and above. Microwave frequencies.

VERY HIGH FREQUENCY (VHF)  Frequencies of 30 to 300 megacycles.

VIEWFINDER  Small TV set mounted on top of the television camera for the use of the cameraman in lining up and focusing his shot.

VTR  Stands for Video Tape Recording. The recording, on magnetic tape, of the electronic impulses which make up the television picture.

ZOOM  A fast movement toward or away from the subject being photographed. Can use a rapid dolly or a zoom-type or vari-focal lens.
IV. STUDENT RESOURCES

A. State-adopted textbooks


B. Non-state-adopted supplementary materials

1. Textbooks


2. Reference materials


3. Periodicals

Broadcasting - A weekly publication on the business/industry side of broadcasting. Coverage is very thorough, especially of regulatory issues. Slant is definitely pro-industry.

Journal of Broadcasting - A quarterly which publishes research reports, scholarly articles, and bibliographies.

Variety - The weekly staple of the show world. Gives thorough and objective treatment to film and broadcasting.

4. Media resources

Films

"Best in Television" 10' Institute of Visual Training, 49 East 49th Street, New York 17, New York.

"Creating Cartoons" 10' BW Bailey 1-04188

"Four Ways to Drama" 33' UCLA Los Angeles, California

"How Television Works" 10' United World Films, 1445 Park Avenue, New York 29, New York


"Naturally It's FM" 17' C General Electric Co., 1 River Road, Schenectady, New York


- 20 -
"Radio Broadcasting Today" 19' BW McGraw-Hill 1-13124

"Radio Waves" 29' McGraw-Hill 1-30208

"Simple Hand Puppets" 20' C Walt Disney 1-11740

"Staging for Television" 30' BW NET 1-31367

"Television Directing" Part 1 30' BW NET 1-31368

"Television Directing" Part 2 30' BW NET 1-31369

"Television in Your Community" 11' BW Coronet 1-00840

"Television Lighting" 30' BW NET 1-31370

"Television Land" Pyramid Films 8' C

Records

"Discover the Sounds of the City" 2 discs. Urban Media Materials

"I Can Hear It Now/The Sixties" Columbia Records

"Great Moments in Radio" Vol. 1 and 2 Evolution

V. TEACHER RESOURCES

A. Textbooks


B. Professional books and periodicals


C. Films

"Communications Primer" 22' C Produced by University of California, 1957. Distributed by Florida State University

"Story of Television" 22' C 1956 Institute of Visual Training, 40 East 49th Street, New York, New York

"Television: How It Works" 11' BW Coronet 1-03548

"Television Is for You" Four 15' films National Project in Agricultural Communications, Michigan State University, East Lansing, Michigan

D. Filmstrip