El Dorado Union High School District
Educational Services

Course of Study Information Page

Course Title: Video Production	
Rationale: A continuum of courses, including advanced classes in technology is needed. At Union Mine, the 4 x 4 schedules create an immediate need for additional elective options. This course provides the opportunity for students to increase their technical skills through a year long (one term) course. In addition, this course offers students the opportunity to explore video production as a possible career option.	
Course Description: Video Production will apply the skills of pre-production through post production including: development of treatments, story boarding, script writing, filming and editing to the production of projects, programs, and broadcasts in the DB-TV Studio. Students will learn to work in production teams as directors, on-air talent, audio engineers, switchers, graphics technicians, etc. as they produce longer quality feature programs for the school network, and, hopefully, for community cable broadcasts. The class will also offer opportunities to visit area television studios and to participate in summer training at UCLA.	
Length of Course:	Year – UMHS Two semesters – EDHS, PHS, ORHS, IHS
Grade Level:	10-12
Credit: X Number of Units • Meets graduation requirements • Request for UC "a-g" requirements • College Prep ☒ Elective • Vocational	5 units per semester
Prerequisites:	Computer Technology ½, recommendation of current English teacher, and successful completion of Introduction to TV Production.
Department:	Business/Technology
District Sites:	EDHS, ORHS, PHS, UMHS, IHS
Board of Trustees Adoption Date:	January 22, 2002
Textbook/Instructional Materials:	
Date Adopted by Board of Trustees:	

EL DORADO UNION HIGH SCHOOL DISTRICT
Educational Services

Department: Business/Technology
Course Title: Video Production

UNIT #1: The Production Process

GOAL: Students will be introduced to video production and to move from the initial idea to the finished product in a systematic way

OBJECTIVES The student will:	SUGGESTED ACTIVITIES
1. A good producer triple-checks everything 2. The defined process message describes the desired communication effect 3. The medium requirements include content elements, production elements and people 4. Formative evaluation is the evaluation of each production phase while the production is in progress 5. The summative evaluation is the final evaluation of the finished production and its actual effect on the audience 6. The closer the actual and defined process messages match, the more successful the communication 7. And successful clustering and brainstorming depend on a free, intuitive, and noncritical flow of ideas	1. Read Chapter 1 "The Production Process" 2. Complete Video Labs 1-3 3. Review of Key Terms 4. Review of Effect-to-Cause Production Model, Review Quiz, Video Lab Quiz, and Problem-Solving Applications

Content Area Standards (Please identify the source)
The students will achieve the following content standards:
National Technology Standards: 1, 2, 3, 4, 5, and 6 EDCOE Technology Standards and Competencies for All Students: Basics, Word processing, Multimedia and Research National Business Standards: Communication and Information Technology California Business Education Standards: Computer Science and Information Technology

EL DORADO UNION HIGH SCHOOL DISTRICT
Educational Services

Department: Business/Technology
Course Title: Video Production

UNIT #1: The Production Process

GOAL: Students will be introduced to video production and to move from the initial idea to the finished product in a systematic way and be introduced to the roles involved in video production

OBJECTIVES The student will:	SUGGESTED ACTIVITIES
1. The functions and responsibilities of each member of the nontechnical and technical production staffs. 2. How to establish and maintain effective communication among production personnel. 3. How to establish a realistic production schedule and stick to it.	1. Read Chapter 2 "Who Does What When?" 2. Complete Video Labs 1-2 3. Review of Key Terms 4. Review of Production Personnel and Responsibilities 5. Review of the Production Schedule, Review Quiz, Video Lab Quiz, and Problem-Solving Applications

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EL DORADO UNION HIGH SCHOOL DISTRICT
Educational Services

Department: Business/Technology
Course Title: Video Production

UNIT #2: Image Creation and Control

GOAL: Students will be introduced to digital video; the video camera; using the viewfinder; operating the camera; light, color and lighting; audio and sound control; and visual effects

OBJECTIVES The student will:	SUGGESTED ACTIVITIES
1. A standard television (NTSC) frame is made up of two scanning fields and there are 30 frames or 60 fields per second. 2. In progressive scanning, each scanning cycle produces a complete frame with a refresh rate of at least 60 frames per second. 3. The established DTV scanning standards are 480p, 720p, and 1080i. 4. All digital systems are based on the binary on/off either/or principle. 5. A high sampling rate is desirable in digitizing analog signals. 6. Compression eliminates redundant information to increase storage capacity and speed up signal transportation.	1. Read Chapter 3 "Digital Video" 2. Complete Video Labs 1-2 3. Review of Key Terms 4. Review of Basic Image Formation, Review Quiz, Video Lab Quiz, and Problem-Solving Applications

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EL DORADO UNION HIGH SCHOOL DISTRICT
Educational Services

Department: Business/Technology
Course Title: Video Production

UNIT #2: Image Creation and Control

GOAL: Students will be introduced to digital video; the video camera; using the viewfinder; operating the camera; light, color and lighting; audio and sound control; and visual effects

OBJECTIVES The student will:	SUGGESTED ACTIVITIES
1. The lower the f-stop, the larger the aperture and the more light is transmitted. 2. The higher the f-stop, the smaller the aperture and the less light is transmitted. 3. The CCD imaging device converts the light variations of an image into electrical energy – the video signal. 4. The composite color signal combines an RGB chrominance © channel with a black-and-white luminance (Y) channel. 5. The camera chain consists of the camera head, the power supply, the sync generator, and the camera control unit. 6. A camcorder has its VTR built into the camera	1. Read Chapter 4 “The Video Camera” 2. Complete Video Labs 1-3 3. Review of Key Terms 4. Review of Camera Function and Elements 5. Review of lens 6. Review of Imaging Device and Camera Chain, Review Quiz, Video Lab Quiz, and Problem-Solving Applications.

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EL DORADO UNION HIGH SCHOOL DISTRICT
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Department: Business/Technology
Course Title: Video Production

UNIT #2: Image Creation and Control

GOAL: Students will be introduced to digital video; the video camera; using the viewfinder; operating the camera; light, color and lighting; audio and sound control; and visual effects

OBJECTIVES The student will:	SUGGESTED ACTIVITIES
1. How to select those event details that tell the real story with clarity and impact. 2. Video is a close-up medium. 3. Vectors are directional forces within the screen that influences composition and the blocking of talent and camera 4. The most stable picture area is screen-center. 5. Headroom neutralizes the pull of the upper screen edge. 6. Leadroom neutralizes the index or motion vector force and pull of the frame. 7. Close-ups that show only part of the object must provide sufficient visual cues for closure in the off-screen space. 8. With the zoom lens in a narrow-angle position, you have a shallow depth of field; keeping focus is difficult. With the zoom lens in a wide-angle position, you have great depth of field; keeping focus is relatively easy. 9. A narrow-angle lens position compresses the z-axis and slows down z-axis motion. A wide-angle lens position stretches the z-axis and speeds up z-axis motion. 10. Whenever possible, keep the camera still and let the event do the moving. 11. It is best to avoid fast and constant zooming in and out. 12. A zoom-in brings the object to the viewer; a dolly-in takes the viewer to the object. 13. Z-axis movement is well suited to the aesthetic requirements of the small video screen and is relative simple to shoot.	1. Read Chapter 5: “Looking Through the Viewfinder” 2. Complete Video Labs 1-8 3. Review of Key Terms 4. Review of Framing a Shot and Picture Composition 5. Review of Vectors and Psychological Closure 6. Review of Lenses, Depth of Field, and Z-axis Manipulation, Review Quiz, Video Lab Quiz, and problem-Solving Applications

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Department: Business/Technology
Course Title: Video Production

UNIT #2: Image Creation and Control

GOAL: Students will be introduced to digital video; the video camera; using the viewfinder; operating the camera; light, color and lighting; audio and sound control; and visual effects

OBJECTIVES The student will:	SUGGESTED ACTIVITIES
1. They need to keep the handheld or shoulder-mounted camera as steady as possible and zoomed-out when moving. 2. Whenever possible, put the camcorder or ENG/EFP camera on a tripod. 3. They need to always lock the mounting head when leaving the camera unattended. 4. They need to white-balance every time they enter a new lighting environment or use the full automatic white-balance. 5. They need to preset a zoom lens, zoom in as close as possible on the target object and bring it into focus. All subsequent zooms will be relatively in focus. Every time the camera or the subject moves, you need to recalibrate. 6. The depth of field is dependent on the focal length of the lens, the aperture and the distance from camera to object. 7. They need to keep zooming to a minimum.	1. Read Chapter 6: "The Video Camera" 2. Complete Video Labs 106 3. Review of Key Terms 4. Review of Camera Mounts 5. Review of Operational Features, Review Quiz, Video Lab Quiz, and Problem-Solving Applications

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EL DORADO UNION HIGH SCHOOL DISTRICT
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Department: Business/Technology
Course Title: Video Production

UNIT #2: Image Creation and Control

GOAL: Students will be introduced to digital video; the video camera; using the viewfinder; operating the camera; light, color and lighting; audio and sound control; and visual effects

OBJECTIVES The student will:	SUGGESTED ACTIVITIES
1. Lighting means deliberate illumination and shadow control. 2. Attached shadows reveal form and texture. 3. Cast shadows help us tell where things are and when events take place. 4. Falloff defines the contrast between light and dark areas and how quickly light turns into shadow. 5. The additive primary colors are red, green, and blue 6. Color temperature measures the relative reddishness or bluishness of white light. Reddish white light has a low color temperature; bluish white light has a high color temperature. 7. Spotlights produce a sharp, directional light beam and cause fast falloff. 8. Floodlights produce general, nondirectional illumination and cause slow falloff. 9. Safety is always the most important element of a lighting set-up. 10. The basic photographic principle or triangle lighting, consists of a key light, a fill light, and a back light. 11. The major criterion for good lighting is how it looks on the monitor. 12. In the filed, light for visibility rather than artistic impact.	1. Read Chapter 7: “Light, Color Lighting” 2. Complete Video Labs 1-10 3. Review of Key Terms 4. Review of Light, Shadows, and Color 5. Review of Lighting Instruments 6. Review of Lighting Techniques, Review Quiz, Video Lab Quiz, and Problem-Solving Applications

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EL DORADO UNION HIGH SCHOOL DISTRICT
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Department: Business/Technology
Course Title: Video Production

UNIT #2: Image Creation and Control

GOAL: Students will be introduced to digital video; the video camera; using the viewfinder; operating the camera; light, color and lighting; audio and sound control; and visual effects

OBJECTIVES The student will:	SUGGESTED ACTIVITIES
1. Microphones transduce sound waves into electric energy – the audio signal. 2. The pickup pattern indicates the zone in which a microphone can hear well – its directionality. 3. They should treat all microphones gently, even when turned off. 4. They should test the hand mic you are using before going on the air. 5. Wireless or radio microphones are subject to interference. 6. They should always check that the connectors on the cable fit the microphone output and the inputs at the other end. 7. They should keep cable connections and adapters to a minimum as each one is a potential trouble spot. 8. Sounds and sound mixes can be entirely computer generated. 9. The figure-ground principle in audio means to make a specific sound or group of sounds louder and more distinct than the ambient sounds. 10. Close-ups need more sound presence than do long shots. 11. Sound is an important factor in providing shot continuity. 12. High-energy pictures should be matched with high-energy sounds; and the opposite.	1. Read Chapter 8: “Audio and Sound Control” 2. Complete Video Labs 1-7 3. Review of Key Terms 4. Review of sound-Generating Elements and Sound Pickup 5. Review of Microphone Use 6. Review of Sound Control 7. Review of Sound Recording and Aesthetics, Review Quiz, Video Lab Quiz, and Problem-Solving Applications

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UNIT #2: Image Creation and Control

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OBJECTIVES The student will:	SUGGESTED ACTIVITIES
1. Video consists of lens-generated and computer-generated images. 2. The superimposition is a simultaneous overlay of two pictures. 3. The key source cuts into the base picture, making the key seem to be layered on top of the base picture. 4. In a chroma key, all blue and green background areas are replaced by the keyed background image. 5. They should use special effects only if they help clarify or intensify the intended message. 6. Analog video must be digitized before any digital manipulation can take place. 7. Synthetic images are entirely computer-generated.	1. Read Chapter 9 “Visual Effects” 2. Complete Video Labs 103 3. Review of Key Terms 4. Review of Standard Electronic Effects, Review Quiz, Video Lab Quiz, and Problem-Solving Applications

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EL DORADO UNION HIGH SCHOOL DISTRICT
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Department: Business/Technology
Course Title: Video Production

UNIT #3: Video Recording, Switching and Editing
GOAL: Students will be introduced to the post-production process, including video recording, storage and sequencing, as well as various video-recording and storage systems, switching, and post-production editing.

OBJECTIVES The student will:	SUGGESTED ACTIVITIES
1. Videotape recorders record analog or digital video and audio signals and other information necessary for the proper operation of the tape. 2. Videotapes recorded as Y/C component, RGB component or Y/color difference component signals cannot be played back on composite (NTSC) equipment. 3. They should always check that the cassette format matches the VTR and that the cassette tab is in place for recording. 4. The video leader must be generated by the equipment actually used in the videotape recording. 5. Keep an accurate field log while recording session and carefully label all videotapes. 6. They should always make protection copies of all source tapes. 7. Nonlinear digital storage devices allow random and almost instantaneous access to each video frame. 8. Interactive video allow the viewer to exercise choice with immediate feedback and combines the functions of television and the interactivity of the desktop computer.	1. Read Chapter 9 “Visual Effects” 2. Complete Video Labs 1-3 3. Review of Key Terms 4. Review of Standard Electronic Effects, Review Quiz, Video Lab Quiz, and Problem-Solving Applications

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GOAL: Students will be introduced to the post-production process, including video recording, storage and sequencing, as well as various video-recording and storage systems, switching, and post-production editing.

OBJECTIVES The student will:	SUGGESTED ACTIVITIES
1. Switching means instantaneous editing from simultaneously available video sources. 2. Switchers allow the selection of multiple video inputs and the immediate creation of various transitions and effects. 3. The program bus sends the selected video inputs directly to the line-out and it is a cuts-only device. 4. Mix buses let you do cuts, dissolved, superimpositions and fades. 5. The effects and key buses can accomplish various wipes, keys and special effects. 6. The use of VTRs designates linear editing, whether the recording is analog or digital. 7. The basic principle of linear editing is copying sections of the source taps to the edit master tape in the desired sequence. 8. Normally, single-source VTR editing systems are limited to cuts-only transitions. 9. Dissolves, wipes and other special-effects transitions are possible with multiple-source editing systems. 10. The time code provides a unique address for each frame of recorded video. 11. The edit master tape must be prepared for insert editing by first recording black on it. 12. The basic nonlinear editing principle is file management. 13. They should always make a protected copy of the original source tapes.	1. Read Chapter 11: “Switching and Postproduction Editing” 2. Complete Video Labs 1-7 3. Review of Key Terms 4. Review of Basic Switcher Operation 5. Review of Postproduction Editing 6. Review Quiz, Video Lab Quiz and Problem-Solving Applications

14. The vector notations on the VTR log facilitate locating shots that show people or objects pointing or moving in a specific direction. 15. If the intent is to produce an EDL or rough-cut, the editing is off-line. If the editing produces the edit master tape, it is on-line. On-line equipment is usually of higher quality than off-line equipment. 16. The EDL is the road map for on-line editing.	

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UNIT #3: Video Recording, Switching and Editing

GOAL: Students will be introduced to the post-production process, including video recording, storage and sequencing, as well as various video-recording and storage systems, switching, and post-production editing.

OBJECTIVES The student will:	SUGGESTED ACTIVITIES
1. Editing means selecting significant event details and putting them into a specific sequence to tell a story with clarity and impact. 2. The condensing function of editing requires a recognition of the essence of an event and the selection of shots that best express that essence. 3. Careful attention to preproduction and production details can obviate most corrective editing. 4. Continuity editing means preserving the location and motion of objects over a series of shots to help the viewer establish and maintain a mental map of where things should be or where they should move. 5. Graphic, index and motion vectors play an important part in establishing and maintaining continuity from shot to shot. 6. To maintain on-screen positions and vector continuity, both cameras must be kept on the same side of the vector line.	1. Read chapter 12: “Editing Principles” 2. Complete Video Labs 1-7 3. Review of Key Terms 4. Review of Aesthetic Principles of Continuity Editing 5. Review Quiz, Video Lab Quiz and Problem-Solving Applications

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EL DORADO UNION HIGH SCHOOL DISTRICT
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Department: Business/Technology
Course Title: Video Production

UNIT #4: Talent and the Production Environment

GOAL: Students will be introduced to the people who work in front of the camera and what they must do to convey the desired message, the studio and its associated control areas and how to use various field environments

OBJECTIVES The student will:	SUGGESTED ACTIVITIES
1. Talent refers to video performers and actors. 2. Eye contact with the camera lens establishes eye contact with the viewer. 3. When on a close-up, keep your gestures small and slow. 4. When taking a level, speak at the volume you will actually use during the performance and speak long enough to set the volume on the audio console. 5. Always respond promptly to the floor manager's cues. 6. When acting for a video medium, you must feel the role rather than merely act it out. 7. Meticulously follow the rehearsed blocking during each take. 8. Makeup is used to enhance, correct or change appearance. 9. Apply makeup under lights that have the same color temperature as those in the performance are.	1. Read Chapter 13: "Talent, Clothing and Makeup" 2. Complete Video Labs 1-2 3. Review of Key Terms 4. Review of Videotape Recording Systems 5. Review of Video-Recording Process 6. Review of Nonlinear Storage Systems 7. Review of Interactive Video and Multimedia 8. Review Quiz, Video Lab Quiz and Problem-Solving Applications

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EL DORADO UNION HIGH SCHOOL DISTRICT
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Department: Business/Technology
Course Title: Video Production

UNIT #4: Talent and the Production Environment

GOAL: Students will be introduced to the people who work in front of the camera and what they must do to convey the desired message, the studio and its associated control areas and how to use various field environments

OBJECTIVES The student will:	SUGGESTED ACTIVITIES
1. The studio provides maximum production control. 2. The control room is designed to coordinate the studio production process. 3. A reliable and flexible intercom system is essential for effective teamwork in multicamera studio productions. 4. The director and TD must sit next to each other in the control room. 5. Master control checks the technical quality of all programs and facilitates program input, storage and retrieval. 6. Scenery must create a certain environment and must allow for optimal lighting, audio pickup and camera movement. 7. Properties and set dressings determine the character and style of the environment. 8. The floor plan – a diagram of scenery and set props – shows the setup requirements and facilitates pre-production planning.	1. Read Chapter 14: "Production Environment: The Studio" 2. Complete Video Labs 1-3 3. Review of Key terms 4. Review of Video Production Studio 5. Review of Scenery, Properties and Scenic Design 6. Review Quiz, and Problem-Solving Applications

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UNIT #4: Talent and the Production Environment

GOAL: Students will be introduced to the people who work in front of the camera and what they must do to convey the desired message, the studio and its associated control areas and how to use various field environments

OBJECTIVES The student will:	SUGGESTED ACTIVITIES
1. In field production, you must adapt to the environment. 2. Whenever possible, have the reporter stand in a shaded area rather than bright sunlight. 3. The remote survey is an important preproduction activity for all field productions except ENG. 4. Prepare a checklist of all equipment needed and test all equipment before taking it to the remote location. 5. Watch the weather and background for shot continuity when shooting outdoors. 6. After the production make sure you leave the location the way you found it and that you brought back everything you took to the field. 7. Big remotes resemble multicamera studio shows, except that the event takes place outside the studio and the control room is located in a truck or other vehicle. 8. Synthetic environments can be built partially or entirely by computer.	1. Read Chapter 15: "Field Production and Synthetic Environments" 2. Complete Video Labs 1-5 3. Review of Key Terms 4. Review of ENG and EFP 5. Review of Synthetic Environments 6. Review Quiz, Video Lab Quiz and Problem-Solving Applications

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