DIG-592: STUDIO PRODUCTION & LIVESTREAMING (FORMERLY DIG-191)

Effective Term
Fall 2023

BOT Approval Date
06/23/2022

Discipline
DIG - Digital Media
Course Number
592

Course Title
Studio Production & Livestreaming (formerly DIG-191)

Short Title
Studio Production

Credit Status (CB 04)
D - Credit - Degree applicable

Units

Lecture Units
2.00

Lab Units
1.00

Total Units
3.00

Hours

Lecture Contact Hours
32-36
Out of Class Hours Lecture
64-72

Lab Contact Hours
48-54
Out of Class Hours Lab
0.00

Total Contact Hours
80 - 90

Total Out of Class Hours
64 - 72

Total Student Learning Hours
144 - 162

Is this an existing Extensive Lab?
No

Do you want to propose this for Extensive Lab?
Yes

Distance Education
No

Catalog Description
This course introduces theory, terminology and operation of a multi-camera television studio and control room. Topics include studio signal flow, directing, theory and operation of camera and audio equipment, switcher operation, fundamentals of lighting, graphics, video control and video recording and real-time video production. (formerly DIG 191)

Requisites

Prerequisite(s)

Prerequisite(s) (must be taken before)
AUD-180 or DIG-190 (with a grade of C or better).

Codes

TOP Code (CB 03)
0614.00* - *Digital Media

CIP Code
50.0102 - Digital Arts.

Student Accountability Model (SAM) Priority Code (CB 09)
C - Clearly Occupational

Noncredit Category (CB 22)
Y - Credit Course

Repeatability Code
No

Grading Option
Letter grade OR P/NP

Minimum Qualifications

Minimum Qualifications	And/Or
Media Production	Or
Multimedia	End

CSU Area(s)

IGETC Area(s)

Learning Objectives

Learning Objectives

Learning Objective
1. Categorize the various personnel positions of a television studio and control room.
2. Produce a finalized script that supports the ideas and objectives of the project design and treatment.
3. Create and execute standard pre-production skills including planning, scripting, budgeting, crew and equipment selection.
4. Demonstrate proper use of basic television studio and control room equipment.
5. Analyze and overcome creative bias in the subjective processes of filming and editing a television broadcast segment.

6. Evaluate the success of a production team during a television broadcast.
7. Promote content creation in relation to social justice, race/ethnicity, gender, class, sexual orientation, and ability.

Learning Outcome Information

Course Learning Outcomes

Learning Outcome
Transform creative ideas into tangible forms. Generate new meaning using different media. Adapt and apply a technical skill in a new and novel situation.
Generate new meaning using different media.
Adapt and apply a technical skill in a new and novel situation.

Program Learning Outcomes

Learning Outcome
Apply information and digital design concepts.
Communicate verbally and visually, demonstrating creativity and innovation.
Demonstrate professional accountability, task completion, and appropriate team interaction.
Demonstrate professional level production skills effectively.
Interpret, evaluate, and apply digital media effectively.

Institutional Learning Outcomes

Aesthetic Awareness: The student will identify and evaluate how aesthetic expression leads to an appreciation of social and cultural context as well as the values of art and nature.
Communication: The student will effectively express and exchange ideas through listening, speaking, reading, writing, visual works, and other modes of interpersonal expression.
Critical Thinking: The student will analyze problems, gather and synthesize relevant information, evaluate ideas, information, and evaluate alternative points of view to create, innovate and implement effective solutions.
Cultural Awareness and Humility: The student will demonstrate knowledge of and sensitivity toward individuals of diverse ethnicity, age, gender, sexual orientation, and religious affiliations, as well as toward those individuals with diverse abilities and socio-economic classes to respectfully interact with individuals of diverse perspectives, beliefs and values while being mindful of the limitation of their own cultural frameworks.
Information and Technology Literacy: The student will access, interpret, evaluate, and apply relevant information sources and digital media effectively, and in an ethical and legal manner.
Social Awareness: The student will recognize and analyze the interconnectedness of global, national, and local concerns, analyzing cultural, political, social, and environmental issues from multiple perspectives and appreciate similarities and differences among cultures.
Personal
and Professional Responsibility
Civic

Content

Course Lecture Content

1. Broadcast Theory
    a. Historical Review
        i. Philo Pharnsworth
        ii. Live broadcast
        iii. Recorded/delayed broadcast
            1. Charles Ginsburg
        iv. Issues of Representation in Broadcast Television
            1. Social Issues and TV in the 1970s
            2. The 1990s Boom in Black Television
            3. Industry Diversification Union Support
2. Modern Content Creation & Livestreaming
    a. Personal Content Creation to Mass Audiences
    b. Streaming Services & Audience Demographics
    c. Being a Responsible Content Creator

i. Promoting Content in Relation to Social Justice, Race/Ethnicity, Gender, Class, Sexual Orientation, and Ability.
1. Accountability & Cancel Culture
2. Discrimination within the Livestreaming/Gaming Communities

d. Types of Transmission
i. Analog Broadcasting
ii. Digital Broadcasting
iii. Standard Definition
1. 480 interlaced
iv. High Definition
1. 1080 progressive
2. 1080 interlaced
v. Ultra-high Definition
1. 4k
2. Above and beyond 4k

e. Financing/Bugeting
i. Studio Equipment
1. Reality of want and desire
a. How to make the equipment fit inside the budget
ii. Crew
1. Standard crew-size and associated costs
2. Working within the budget
a. Maintaining records

f. Scripting for a television show
i. From concept to broadcast
1. Concept of show
2. Integration of concepts to a Treatment
3. Using a treatment as the basis of a script
4. Script forms
5. Production of a script
6. Review and finalize

3. Introduction to the Television Studio
a. Studio video camera
i. Lenses
1. Size
2. Focus
3. Iris
4. Zoom
ii. Body
1. Gain
2. White balance
3. Pedestal (contrast)
4. Balance
5. Auto vs Manual Modes
6. Audio (if applicable)
a. Gain
b. Limiter
iii. Output
1. SDI
2. HDMI
3. Fiber
4. XLR audio (if applicable)
iv. Tripod/pedestal
1. Head adjustments
2. Fore and aft balance
3. Tilt and pan adjustments

b. Lighting

i. Key
ii. Fill
iii. Backlight/hairlight
iv. Set fill
v. Modifiers
    1. Diffusers
    2. Honeycombs screens
    3. Reflectors
    4. Flags

c. Stage Audio
    i. Microphones
        1. wireless lapel
        2. boom mics
        3. PZM mics

4. Introduction to the Control Room
    a. The Switcher
        i. Audio input and mix
        ii. Fader bars
        iii. Downstream key (DSK)
        iv. Graphics
            1. Import
            2. Organization
        v. Chroma keying
            1. Color selection
        vi. Transitions
        vii. Program bus
        viii. Preview bus
        ix. Source selectors
            1. Source A
            2. Source B
        x. Lighting Memory Controllers/Consoles
            1. Faders
            2. Sub-masters
            3. Scene faders
            4. Preset modes
            5. Bump modes
            6. DMX output
            7. Programming
            8. Scenes
            9. Source selection
        xi. Audio Mixer
            1. Signal path
                a. 5-points of audio
            2. Setting Unity
                a. Mic level
                b. Line level
            3. Equalization
            4. Effects/aux channels
                a. Monitor Channels
            5. Faders
            6. Assignments
            7. Sub-masters
            8. Master output
        xii. Teleprompter
            1. Input interface
                a. Computer programming

2. Scroll speeds
    a. Operator Mode
    b. Host Mode
3. Monitoring

xiii. Communications System
1. Mic/headphones
2. Key switch

xiv. Studio Recorders
1. File types
2. NTSC standards
3. Operations
4. File transfers

5. Introduction to Personnel/Staffing
    a. Program Director
        i. In charge of all programs shown on a TV station
        ii. Coordinates departments with programs
    b. Show Director
        i. Coordinates w/ assistants (stage and control room) involved with specific show
        ii. Directs Technical for source choices
        iii. Directs camera placement/movement
        iv. Directs hosts/celebrities
        v. Works with Floor Director
    c. Floor Director/Manager
        i. Coordinates crew and hosts on stage
        ii. Works closely with the Show director
    d. Technical Director
        i. Works with the Vision Switcher
        ii. Ensures multiple camera sync
            1. Color
            2. Aperture
            3. Broadcast quality
        iii. Graphics
            1. Imports and organizes files from Graphic Artists
            2. Character Generator
        iv. Camera Operator
            1. Works with/take direction from both Floor Manager and Director
            2. Operates video camera
                a. Lens
                b. Iris
                c. Movement
                d. Zoom
                e. Internal setting
            3. Audio Engineer
                a. Works under the Show Director
                b. Operates the audio mixing board
                    i. Coordinates all audio input sources for master mix
            4. Teleprompter Programmer/operator
                a. Works under the Floor Manager
                    i. Works with show hosts
                b. Programs and operates the teleprompters
            5. Lighting Operator
                a. Works under Show Director
                b. Operates Lighting Controller(s)
                    i. Programs cues
                    ii. Programs scenes
            6. Recording Operators

        a. Works under the Director
        b. Ensures program recordings
        c. Operates the various video and audio recording equipment
    7. Graphics Artist
        a. Creates show graphic
        b. Coordinates with Director
        c. Coordinates with Technical Director
        d. Works with Character Generator
6. Show Operation
    a. Coordination of the Show Team
        i. Understanding crew hierarchy
    b. Introduction to Master Clock
    c. Rehearsal Schedules
    d. Calling the Show
        i. Calling cues
        ii. Calling the sources
        iii. Following Floor Manager Directions
    e. Running a Live Show
    f. Wrap-up
        i. File Exporting
        ii. Proper shut-down procedures
        iii. Storage of equipment and cables
7. Post Production & Distribution
    a. The Editing Workflow
        i. Program vs. ISO Files
        ii. Fixing Mistakes in a Live Show using Editing
    b. For broadcast
        i. HD/Standard Definition
            1. File types
        ii. Scheduling
            1. Preview approval
            2. Target-audience time slot
            3. Season vs semi-seasonal
    c. Other methods of distribution
        i. Downloadable files
        ii. Web streaming
            1. Vimeo
            2. YouTube
        iii. Over The Top (OTT) Apps
            1. Apple TV
            2. Roku
            3. FireTV

Course Lab Content

1. Studio and Control Room Safety
    a. Trip Hazards
    b. Equipment use
    c. Hot lighting instruments
    d. Electricity Basics
2. Studio and Control Room Signal Path
3. Hands-on training in the Control Room
    a. The Switcher
        i. Source selectors
            1. Source A
            2. Source B
        ii. Preview bus
        iii. Program bus

iv. Transitions
v. Chroma keying
1. Color selection
vi. Graphics
1. Import
2. Organization
vii. Downstream key (DSK)
viii. Fader bars
ix. Audio input and mix

b. Hands-on training with Lighting Memory Controllers/Consoles
i. Faders
ii. Sub-masters
iii. Scene faders
iv. Preset modes
v. Bump modes
vi. DMX output
vii. Programming
viii. Scenes
ix. Source selection

c. Hands-on training with Audio Mixer
i. Signal path
1. 5-points of audio
ii. Setting Unity
1. Mic level
2. Line level
iii. Equalization
iv. Effects/aux channels
1. Monitor Channels
v. Faders
vi. Assignments
vii. Sub-masters
viii. Master output

d. Hands-on training with the Teleprompter
i. Input interface
1. Computer programming
ii. Scroll speeds
1. Operator Mode
2. Host Mode
iii. Monitoring

e. Introduction to the Communications System
i. Mic/headphones
ii. Key switch

f. Introduction and operation of Studio Recorders
i. File types
ii. NTSC standards
iii. Operations
iv. File transfers

4. Hands-on training in Studio
a. Studio video camera
i. Lenses
1. size
2. focus
3. iris
4. zoom
ii. Body

1. gain
2. white balance
3. pedestal (contrast)
4. balance
5. auto vs manual modes
6. audio (if applicable)
    a. gain
    b. limiter

iii. Output
1. SDI
2. HDMI
3. Fiber
4. XLR audio (if applicable)

iv. Tripod/pedestal
1. head adjustments
2. fore and aft balance
3. tilt and pan adjustments

b. Lighting Placement
i. key
ii. fill
iii. backlight/hairlight
iv. set fill
v. Modifiers
1. diffusers
2. honeycombs screens
3. reflectors
4. flags

c. Stage Audio
i. Microphones
1. wireless lapel
2. boom mics
3. PZM mics

5. Student Personnel Shifts (each student will rotate through every personnel position)
a. Program Director
b. Show Director
c. Floor Director/Manager
d. Technical Director
e. Camera Operator
f. Audio Engineer
g. Telepromter Programmer/operator
h. Lighting Operator
i. Recording Operators
i. File Exporting
ii. Proper shut-down procedures
iii. Storage of equipment and cables

Methods of Instruction

Method

Activity

Integration

Instructor-led activities will provide various lighting set-ups and practice in applying light and color to effectively allow students to demonstrate knowledge of studio lighting systems.

Method
Group Projects

Integration
Group Projects incorporating B-Roll, visual effects, and other graphic elements into a multi-camera video production will train students to categorize the various personnel position of a Television Studio environment.

Method
Lecture

Integration
A lecture presentation that highlights the ways multi-camera editing including process, and editing bias relates to issues of representation of race and gender in broadcast television and content creation.

Methods of Evaluation

Method
Class Work

Integration
Guided in-class exercises will evaluate the student's ability to follow directions and generate/promote content creation in relation to social justice, race, gender and ability.

Method
Group Projects

Integration
Projects of increasing difficulty and scope submitted through the CMS will be evaluated for effective storytelling and proper demonstration of basic television studio and control room equipment. Feedback will be given asking students to consider additional technical/creative concepts, challenge/clarify creative bias, pose questions/critiques, and/or encourage students to think beyond base processes and incorporate passions, views, and concerns into the submitted work.

Method
Homework

Integration
Low-risk assessments will be delivered through the Assignment portion of the CMS as homework and evaluated based on the student's ability to retain/reuse knowledge of prior exercises in ways that are new and that solve new problems.

Assignments

Assignment Type
Other

In-class and/or outside of class
In-class

Formative or Summative
Formative

Assignment
Public Service Announcement:

In this exercise you will produce a Public Service Announcement (PSA). The total length of this project should be 30 or 60 seconds exactly. The finished project must contain the following criteria:

A topic that clearly deals with currents issues related to social justice, race, gender, and/or ability.
A concise story that highlights the chosen topic
Proper editing that uses pacing and timing to evoke emotion from the viewer
A clear Call-to-Action

You will be responsible for conceiving the concept, pitching the concept, writing all necessary production documentation (scripts, storyboard, shot sheet, etc.), producing the PSA and editing it to completion. Remember to strive to produce quality content that does your chosen topic justice in narrative and quality.

Submit an exported .mp4 file of your finished PSA here for review.

Assignment Type
Reading

In-class and/or outside of class
Outside of class

Formative or Summative
Summative

Assignment
Client Scenarios:

Clients are a normal part of this industry. Clients need your creative skillset and you need clients to pay you for your work. It's an exchange of services no different than someone paying for their coffee (just a little more expensive). So what happens when a client is unhappy with your work, refuses to pay, or continues adding extra work onto your plate that you never agreed to? Well, let's talk about that. This part of the class is going to involve some imagination on your part and some (hypothetical) people skills. Here's how it will work:

Step 1: Read the Client Scenario
Over the next 8 weeks, I will be release 3 client scenarios common in the industry as written stories. The three scenarios are titled:

The "I'll Know What I Want When I See It" Client
The "Give a Mouse a Cookie" Client
The "Invisible Hand" Client

You will read the the backstory and the nightmare it caused, however, you will responsible for discussing how it could resolve.

Step 2: Discuss it with the Class
After reading through the assigned scenario, you will then engage in a discussion with your peers about how you would go about resolving the issues identified in the scenario. The goal here is to seriously consider how you would approach this - don't be funny/mean in your replies. Being funny/mean costs you the client relationship and potentially keeps you from getting paid. Think through it realistically.

Assignment Type
Writing

In-class and/or outside of class
Outside of class

Formative or Summative
Summative

Assignment
Script for Proposed Television Segment:

Your script will serve as a key production document. You are tasked with writing a script that adheres to proper formatting so it can ultimately be used on set during filming.

Formatting Basics to Remember:
Use proper font and size (Courier New, 12)
Include page numbers in the upper right
Clearly identify location and time of day using proper identifiers

Submit a word document of your finished script here.

Course Materials

Textbooks
Jago, Maxim (2021). Adobe Premiere Pro CC Classroom in a Book Adobe Press. ISBN: 0137280920

Class Size Information

Class Size
30

Class Size Category
F - Individualized, skills#based instruction/field practice 30

Diversity and Inclusion

Explain how diversity and inclusion(e.g., gender, culture/race, sexuality, etc.) is infused into the course.
Diversity and inclusion is infused into this course through the covering of television and broadcast history as it relates to representation and diversity as well as through introducing stories from a diverse range of clients that need to be told in a way that upholds the integrity of the story itself while being aware of the bias that can come through the filming and editing process. By drawing attention to and discussing these biases, students can be made aware of themselves and their views of the world through film.

Students will be encouraged to consistently apply learned technical knowledge in projects/animations that reflect/communicate their views, beliefs, and concerns about society, race, gender, and self. This is the primary responsibility of an artist and one that promotes a responsible and diverse application of creative skills learned throughout the class.

Describe how assignments, instruction, evaluation, course content, and interactions are contextualized for diverse learners promoting an equitable course.
As a technical/skill-based course, every assignment will require students to reflect/communicate their views, beliefs, and concerns about society, race, gender, and self in the video content that is created. Video is communication and communication is an opportunity for expression of self. For example, students will produce a public service announcement that raises awareness to an issue they choose. Through their production efforts, they will be able to produce content that communicates their stance on their chosen issue.

In addition, the course is given very clear structure in its course design. Understanding that a lack of structure can leave students behind, this course is structured so that students who engage with the assignments, exercises and pedagogy have clarity in direction and accessibility in content; this way, students who come to the class with different cultural backgrounds, personalities, social supports, and learning differences can approach the course with confidence. For example, there are only 3 formats of assessments in the course, each with a universal naming structure (Follow Along, You Try, and Projects). These 3 assessments follow the 'we do/you do' mentality and provide an equitable approach to learning new skills.

Interactions

Explain how the course will incorporate student-to-student interaction.

Students will primarily engage with one another through the content they create throughout the class as a means of solidifying content creation as an expression of self. Placing students in production teams with other students will reinforce teamwork so a cohesive project can be produced. Students will discuss their peers' work, processes, and results through in critique format to motivate collaborative interactions that aid in understanding the artist/peer perspective through their produced work.

Explain how the course will incorporate instructor-to-student interaction.

Using the course CMS discussion forums and/or in-class, the instructor will participate in class discussions asking students to apply technical/creative concepts, challenge/clarify creative bias, pose questions/critiques, and/or encourage students to think beyond base processes and incorporate passions, views, and concerns into the work they produce. In addition, the instructor will preside over team/studio productions and engage with students through the production process.

Explain how the course will incorporate student-to-content interaction.

To learn video production skills and concepts, technical requirements, and broadcast principles, students will reference accessible and ADA compliant materials such as recorded and written lecture materials, illustrative images, video or audio lectures, embedded or linked multimedia content (such as films, YouTube videos, podcasts, etc), and student created or curated content.

Students will also spend time in-studio getting the opportunity to apply course content theory in practical interactions.

Explain how the course will incorporate student-to-self interaction (metacognitive).

Producing television that broadcasted live while working on a team requires immense self-awareness - not only in strengths but in weaknesses. Students will quickly realize their own limitations and discover new positions and technical skills in which they excel.

Live production provides constant opportunities for students to make self-guided decisions and alterations in their creative decisions to make content that represents their own styles. This unique aspect promotes flexible thinking, interpretation skills, deductive reasoning, and learning to navigate the broad process or creating content from scratch. Through discussions and assignments delivered through the course CMS, students are asked to retain/reuse knowledge of prior exercises in ways that are new and that solve new problems. Through the analysis of other video productions students explore connections between video art and various social, racial, and/or economic contexts.

Key: 1210