FILM-2180: DIGITAL CINEMATOGRAPHY

Cuyahoga Community College

Viewing: FILM-2180 : Digital Cinematography

Board of Trustees:
January 2020

Academic Term:
Fall 2020

Subject Code
FILM - Film and Media Arts

Course Number:
2180

Title:
Digital Cinematography

Catalog Description:
Focus on issues facing cinematographers, camera operators, digital imaging technicians, and others working in digital cinematography. Basic introduction to microphones and sound recording. Discussion of current options in acquisition format for film and media arts. Introduction to crew roles and set etiquette. Hands-on experience in using a variety of lighting instruments to produce desired effects. Emphasis on the practical use of light, color, picture composition, and camera movement to communicate a mood and tell a story.

Credit Hour(s):
3

Lecture Hour(s):
2

Lab Hour(s):
3

Requisites

Prerequisite and Corequisite
FILM-1180 Introduction to Film and Media Arts, and VCPH-1261 Photography I, or FILM-1040 Imaging Basics For Film And Media Arts: On Location and In Studio or concurrent enrollment, or departmental approval.

Outcomes

Course Outcome(s):
Develop a lighting style that complements other thematic design elements in a film or media production.

Essential Learning Outcome Mapping:
Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):
1. Use three-point lighting as well as other lighting setups to enhance the story, theme, or center of interest.
2. Apply knowledge of basic color theory to design a lighting setup for digital video.
3. Use lens filters, scrims, flags, reflectors, key, fill, and background lights, C-stands, gels and other lighting instruments to modify a scene's lighting to effectively communicate a mood or theme.

Course Outcome(s):
Produce desired effects for stationary and moving camera sequences.

Objective(s):

1. Make adjustments to camera settings in order to control depth of field, exposure, focus and color reproduction.
2. Explain how lens choices affects picture composition, necessary light, and depth of field.
3. Develop and / or work with storyboards and shot lists.
4. Evaluate audio conditions and select microphones for basic location sound recording.
5. Evaluate available lighting and set up lighting instruments to shoot on location.
6. Evaluate the intensity and quality of light using tools such as a light meter, color temperature meter, waveform monitor and vectorscope.
7. Utilize moving camera rigs such as track and dolly, jib, and motion stabilization rigs.

Methods of Evaluation:

1. Participation and Discussion
2. Assignments and Exercises
3. Written Assignments
4. Case Studies
5. Tests and Quizzes
6. Reel (the video/film equivalent to a portfolio)

Course Content Outline:

1. Introduction to core, motion picture acquisition concepts and techniques and basic audio
    a. Technical settings for various camera and recording formats
    b. Frames per second and image resolution
    c. Pixel and screen aspect ratios
    d. Camera and lens options
    e. Microphone and audio recording options
    f. Media transfer and management
    g. Storyboards
    h. Scrims
    i. Color theory
    j. Three-point lighting
2. Proper and safe use of cameras, cables and related grip / electric equipment
3. Camera Operation
    a. Setting aperture and shutter speed
    b. Setting white balance
    c. Recording formats, codecs, and framerates
    d. Evaluating focus
    e. Choosing lenses
    f. Pulling focus
    g. Moving the camera
4. Proper and safe use of grip equipment and lighting instruments
    a. Using tripods
    b. Using Century Stands (C-stands)
    c. Choices in Grip equipment
    d. Safe handling of lighting instruments
    e. Set operations, roles and protocol
5. Controlling Lighting Instruments
    a. Fluorescent, tungsten, LED, and other choices in light
    b. Color temperature in lighting instruments
    c. Quality, intensity and direction of lighting
6. Evaluating a lighting set up
    a. Light meters
    b. Color temperature
    c. Waveform monitors, vector scopes, histograms
    d. Zebra patterns
    e. Focus peaking

   f. False Color
   g. Using external monitors
7. Blocking and shooting a scene
   a. Blocking
   b. Communication on Set
   c. Set Etiquette

Resources

Blain Brown. *Cinematography: Theory and Practice, Third Edition: Image Making for Cinematographers and Directors*. 3rd ed. Focal Press, 2016.

Jennifer Van Sijll. *Cinematic Storytelling: The 100 Most Powerful Film Conventions Every Filmmaker Must Know.* 2005. Michael Wiese Productions, 2005.

Gloman, Chuck B. *Digital Filmmaking Solutions: Solve any Video Shoot or edit problem in Ten Minutes or Less.* 2003 ed. McGraw-Hill/TAB Electronics, 2003.

Gloman, Chuck B. and Tom Letourneau. *Placing Shadows: Lighting Techniques for Video Production*. 3rd ed. Focal Press, 2005.

Gustavo Mercado. *The Filmmaker's Eye: Learning (and Breaking) the Rules of Cinematic Composition [Paperback].* 1st. Focal Press, 2011.

Andersson, Barry. *The DSLR Filmmaker's Handbook: Real-World Production Techniques*. 2nd ed. Sybex, 2015.

Ascher. Steven and Edward Pincus. *The Filmmaker's Handbook: A Comprehensive Guide for the Digital Age: 2013 Edition.* 2013. Plume, 2012.

Panasonic (Author), Matsushita (Author). *Panasonic AG - HVX200 (v3.0) 2 Dvd Set. Disc 1 - HVX200 Countdown, WMV-9 HD files, Camera Manual, Tour, Brochure, P2 White Paper, TV by IT, Tape to IT, SD to HD. Disc 2 - P2 HD Editing and Viewer, HD.* {ts '2006-01-01 00:00:00'}.

"American Cinematographer"

Mercado, Gustavo. *The Filmmaker's Eye: the Language of the Lens: the Power of Lenses and the Expressive Cinematic Image*. 1st ed. New York: Routledge, 2019.

Resources Other

1. Student-produced video from previous semesters
2. Clips from films produced by Tri-C
3. Student-generated scripts, storyboards and project proposals

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