

IMAGE, OPTICS & CINEMATIC MOTION - DC 274 Summer II 2016

INSTRUCTOR: Andy Roche

E-mail: rocheandy@gmail.com (preferred) aroche5@cdm.depaul.edu

Lecture Location: DC 274-502 MW 1:30PM - 4:45PM CDM 00214, Loop

Lab Location: Tu 11:00AM - 1:00PM CDM 00801, Loop

Office: M/W 12.45-1.30 Classroom

Course Description

Cinematography is the scientifically grounded discipline of making lighting and camera choices in order to record moving images. This course deals with the basic mathematics, physics, and photochemistry that underlies cinematography and that motivate camera design and construction. While we have adopted motion images into our daily lives, most people are unaware of the complexities involved in its creation and distribution- the “language of motion” so to speak.

As opposed to photography where the story is one still image, cinematography must deal with objects in motion and the consequential time based considerations of shutter speed vs. frame rate, image resolution, camera motion, motion perception of the viewer and the display of the image(s) on large screens.

A student who masters the foundations of cinematography through a mixture of lectures, readings, exercises, and labs will be able to evaluate understand how motion based recording choices affect perception of moving images they see every day.

Course objectives:

- To control the depiction of three-dimensional space on a 2D surface through the use of optics
- To understand the nature of light and film/video latitude
- To understand how to control exposure
- To determine a visual “look” and achieve it through photochemical and/or digital means
- To understand how the relationship of resolution, frame rate, shutter speed and camera movement influence the viewer

Required Texts

Blain Brown - Cinematography: Theory and Practice. Focal Press, 2002.
Hand-outs as supplied by instructor

Grading

Participation 10%
Reading quizzes 10%
Assignments & in-class Labs 30%
Midterm 20%
Final Exam 30%

All grading is final (assignments may not be resubmitted for new grades). All assignments are due the date noted when assigned. Late assignments will be penalized 10% per week late. If an assignment is more than two weeks late, it is worth a maximum of 50% of its original point value.

If you anticipate you will miss class, the assignment must be submitted the day it is due, unless the absence for the class is excused (documented illness, death in the family, etc.).

Weekly Schedule (subject to change)

Readings and handouts will be assigned throughout quarter

WEEK 1

Lecture - A HISTORY OF MOVING IMAGES & CAMERAS

Lab – Intro to Lab, Procedures, and D2L

Lecture - THE TECHNICAL TRANSFORMATION OF REALITY

Lab – Lab assignment 1 - Create and upload animation in class

WEEK 2

Lecture - EXPOSURE AND PHOTOGRAPHY

Lab – Lab assignment 2 - Virtual Camera lab

Lecture - UNDERSTANDING LIGHTING AND DEPTH OF FIELD

Lab – Lab Assignment 3 - Light Meters and Cameras

WEEK 3

Lecture - OPTICS

Lab – Lab Assignment 4 – Optics Lab

Lecture - MIDTERM REVIEW

Screen *Microcosmos* with discussion

Lab – MIDTERM

WEEK 4

Lecture - SPECIALIZED CINEMATOGRAPHY

Screen film TBA

Lab – Lab Assignment 5 – Slow Motion Lab

Lecture – COLOR THEORY AND SCIENCE

Lab – Lab Assignment 6 – Color Science Lab

WEEK 5

Lecture – IMAGE CONTROL AND HISTORY OF TV

Lecture - COMPREHENSIVE REVIEW/FUTURE OF CINEMATOGRAPHY

Lab – Lab Assignment 7 – Color Correction Lab

**Lab – REVIEW AND LAST CHANCE TO TURN IN LAB ASSIGNMENTS
FINAL EXAM**

Course Policies – in addition to DePaul University course policies (see student handbook), the following special policies will apply to this course.

Attendance – Classes will consist of lecture, screenings, discussion, and creative exercises. Attendance is mandatory. An absence is defined as not showing up for class, or showing up after class has started without valid excuse. Any unexcused absences will result in a reduction of the participation grade. Two absences result in the reduction of the final grade by one letter. Three absences result in an automatic F for the course.

Assignments and Exercises – Assignments and exercises must be completed by the due date provided. Late work will not be accepted without prior consent of the instructor.

Examinations – Students who do not take exams during the regularly scheduled time will receive a failing grade for the exam unless they have contacted the instructor in advance to arrange for a make-up exam. Make-up exams will be administered by the College according to its make-up exam schedule.

Email - Email is the primary means of communication between faculty and students enrolled in this course outside of class time. Students should be sure their email listed under "demographic information" at <http://campusconnect.depaul.edu> is correct. All emails to the instructor must contain a heading specific to the subject discussed in the email.

Plagiarism – Plagiarism on assignments or cheating on exams are serious offenses and earn the student a failing grade for the class. Please read the Academic Integrity Policy (AIP) at: <http://studentaffairs.depaul.edu/handbook/code16.html>.

Course Lectures/Reading Assignments – The assigned readings offer an opportunity for independent learning that supplements the lectures. Lectures will introduce material

not available in the readings, and the readings will explore concepts not mentioned in class. The exam will cover both lecture and reading materials as specified by the instructor.