FILM 254 - Image, Optics & Cinematic Motion - Fall Quarter 2021

Instructor: Brian Mellen
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Office Hours: W 9:00am to 12:00pm **- Zoom By Appt. Only**
F 12:00pm to 3:00pm **- Zoom By Appt. Only**

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Course Information:

Course Code: FILM 254
Course Title: Image, Optics & Cinematic Motion
Prerequisites: None
Term: Fall 2021
Section: 401
Class Hours: M 1:30pm to 4:45pm
Lab Hours: TU 900am to 11:00am
Location of Class: ON-CAMPUS

Summary of Course:

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 motivates 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 and understand how motion based recording choices affect perception of moving images they see everyday.

* *Syllabus is subject to change*

Course objectives:

- To control the depiction of 3D on a 2D surface through the use of optics.
- To understand the nature of light and film/video latitude.
- 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 how camera movement influences the viewer.

Learning Domain Description:

FILM 254 – Image, Optics, and Cinematic Motion is included in the Liberal Studies program as a course with credit in the Scientific Inquiry Domain. Courses in the Scientific Inquiry domain are designed to provide students with an opportunity to learn the methods of modern science and its impact on the world around us.

Courses are designed to help students develop a more complete perspective about science and the scientific process, including: an understanding of the major principles guiding modern scientific thought; a comprehension of the varying approaches and aspects of science; an appreciation of the connection among the sciences; the fundamental role of mathematics in practicing science; an awareness of the roles and limitations of theories and models in interpreting, understanding, and predicting natural phenomena; and a realization of how these theories and models change or are supplanted as our knowledge increases.

Goals and Learning Outcomes:

Below are listed the learning goals and outcomes for the Science Inquiry Domain. Each goal is listed followed by learning outcomes associated with the goal. Most of this document conforms to the National Science Education Standards.

1. **Students will understand the major principles guiding modern scientific thought. Students will demonstrate a mastery of the science content within SID courses.**

2. **Students will know that science, technology, and math serve as mechanisms for inquiry into the nature of the universe. Students will:**

    a. Identify questions that can be answered through scientific investigations.
    b. Design and conduct a scientific investigation to test a scientific hypothesis.
    c. Use appropriate tools and techniques to gather, analyze, and interpret data to support or refute a scientific hypothesis.
    d. Develop descriptions, explanations, predictions, and models using evidence
    e. Describe relationships between evidence and explanations using critical and logical thinking.
    f. Recognize and analyze alternative explanations and predictions.
    g. Communicate scientific procedures and explanations.
    h. Use mathematics in all aspects of scientific inquiry.

3. **Students will understand and appreciate the interrelationships among science, technology and math. Students will:**

    a. Use technology and mathematics to identify a problem or design a solution to a problem.
    b. Give examples of how science and technology inform and influence each other.

4. **Students will understand and appreciate the role of science in society and in their lives. Students will:**

a. Provide examples of how science and technology impact our lives, and how social needs and concerns impact our development of technology and scientific investigation.
b. Develop positive attitudes towards science, technology, and mathematics.
c. Establish an ongoing experiential/service-learning interest in science, technology, and mathematics.

5. Students will understand the nature of science, technology, and mathematics. Students will:

a. Provide examples of the abuse of science, including the representation of unfalsifiable claims as science and other forms of Pseudoscience.
b. Explain the strengths and limits of scientific inquiry.
c. Explain the difference between evidence and inference, and the provisional nature of scientific explanations by providing examples of how our understanding of the workings of the world has changed in the past.
d. Explain the difference between probability and certainty, and describe what is meant by uncertainty in the context of science, technology, and mathematics.

How Learning Outcomes Will Be Met:

Through a mixture of Lectures and Lab work combined with quizzes, lectures, and reading material as well as midterm and final exams.

Writing Expectations:

Writing is integral for communicating ideas and progress in science, mathematics and technology. The form of writing in these disciplines is different from most other fields and includes, for example, mathematical equations, computer code, figures and graphs, lab reports and journals. Courses in the SI domain must include a writing component where that component takes on the form appropriate for that course (eg, lab reports, technical reports, etc).

How Writing Expectations Will Be Met:

Each Lab will have a lab report where students will document their findings. Also, several online quizzes will be given throughout the quarter. The quizzes are written essays based on materials covered in class and the at home readings.

Requirements:

SMARTPHONE REQUIRED TO COMPLETE LABS

Software/Apps will need to be downloaded and possibly purchased for Smartphone for labs

You will need an smartphone tripod to complete several of the labs, here is a recommendation

https://www.amazon.com/UBeesize-Flexible-Wireless-Universal-Compatible/dp/B07VTZTS4X/ref=pd_ybh_a_18?_encoding=UTF8&refRID=JJ7JHN0Z56SETRG3ZZ3Y&th=1

D2L and Course Management System

Recommended Text:

Cinematography: Theory and Practice, Image Making for Cinematographers and Directors, 3rd Edition by Blain Brown

Drop Dates:

Tuesday, Sept. 14: Last day to add (or swap) classes 11:59 PM Deadline
Tuesday, Sept. 21: Last day to drop classes with no penalty
Wednesday, Sept. 22: Grades of "W" assigned for classes dropped on or after this day
Tuesday, Oct. 26: Last day to withdraw from class

Grading:

Attendance	10%
Quizzes	15%
Labs	35%
Midterm	20%
Final Exam	20%

LATE WORK WILL NOT BE ACCEPTED.

Grading Scale:

A = 100-93, A- = 92-90, B+ = 89-87, B = 86-83, B- = 82- 80, C+ = 79-77, C = 76-73, C- = 72-70, D+ = 69-67, D = 66-63, D- = 62-60, F = 59-0.
A indicates excellence, B indicates good work, C indicates satisfactory work, D work is unsatisfactory in some respect, F is substantially unsatisfactory work

Course Policies:

In addition to DePaul University course policies (see student handbook), the following special policies will apply to this course.

COVID-19 Health and Safety Precautions:

Keeping our DePaul community safe is of utmost importance in the pandemic. Students, faculty and staff are expected to (1) wear a mask as required at all times while indoors on campus; (2) refrain from eating and drinking in classrooms; (3) keep current with their COVID-19 vaccinations or exemptions; (4) stay home if sick; (5) participate in any required COVID-19 testing; (6) complete the online Health and Safety Guidelines for Returning to Campus training; and (7) abide by the City of Chicago Emergency Travel Advisory. By doing these things, we are Taking Care of DePaul, Together. The recommendations may change as local, state, and federal guidelines evolve. Students who do not abide by the mask requirement may be subject to the student conduct process and will be referred to the Dean of Students Office. Students who have a

medical reason for not complying with any requirements should register with DePaul's Center for Student with Disabilities (CSD).

Electronic Devices:

There is a no tolerance policy on electronic device usage during class. Cell phone/tablet usage and/or internet usage during class will result in 0 attendance points for the day. It is distracting to others around you. You may take notes on a computer using word or text edit (do not browse the internet) but not on a cellphone/tablet.

Cell Phones/On Call:

If you have a cell phone to class, it must be off or set to a silent mode. Should you need to answer a call during class, students must leave the room or mute your computer's microphone in an disruptive manner. Out of respect to fellow students and the professor, texting is never allowable in class. If you are required to be on call as part of your job, please advise me at the start of the course.

Student responsibilities:

Each student is responsible for their time management and for meeting the expectations in the syllabus. The instructor is not responsible for reminding students of assignment deadlines in class. In the event of an absence, it is the student's responsibility to contact the instructor for an assignment sheet detailing any homework. If an assignment is listed on the syllabus you are still responsible for completing the assignment on time.

Attendance & Participation:

This course demands class participation - attendance is mandatory. Students arriving to class more than 15 minutes late, or leaving before class is dismissed will be considered absent. You are allowed one (1) unexcused absence. After that, a one letter deduction for each absence will be taken from your final course grade. Missing three (3) or more classes will result in a failing grade. Excessive tardiness will also be penalized. If you are sick, have a family emergency, a conflict with work, or any other kind of unforeseen circumstance, please tell me ASAP so that I know what is going on and I can help you out. Addressing these issues weeks after the absence occurred will make it more difficult to help you out and I do want to help wherever I can.

A professional and academic attitude is expected throughout this course. Measurable examples of non-academic or unprofessional attitude include but are not limited to: talking to others when the instructor is speaking, mocking another's opinion, cell phones ringing, emailing, texting or using the internet whether on a phone or computer. The professor will work with the Dean of Students Office to navigate such student issues if

issues are ongoing and can't be resolved in class. Also, adhering to the courses cellphone and computer policy is factored into this portion of your grade as well. SEE ABOVE.

Quizzes:

Quizzes will be given on lectures in class throughout the quarter. You will have an unlimited number of times to take the quiz to get the answers right so that you master the knowledge needed to do well on the Final Exam. Quizzes will be multiple choice and true/false.

Labs:

Labs will be assigned week-to-week based on our lecture schedule (Tuesday-to-Tuesday). Assigned labs will be due by 1pm before the start of the following week's module. Please submit on D2L as PDFs using the following naming conventions **Lastname_FILM254_Labname**. For example, **Mellen_FILM254_Thaumatropelab**. Points will be deducted for not following instructions.

In order to complete these labs you will need to have access to a smartphone and tripod for some of them. You will also likely be required to download a few apps throughout the quarter. Some of them will be free and some will cost a little money. More information on this will become available as we move through the quarter.

Our lab assistant Nilton Da Silva will be available on W from 9am to 11am to answer questions in Zoom. Please contact at NSILVA6@depaul.edu.

Examinations:

Students who do not take exams by the deadline will receive a failing grade for the exam unless they have contacted the instructor in advance to arrange an alternative.

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.

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.

Content Changes:

Depending on time factors, the assignments projected for the term may require slight alteration or rescheduling.

CLASS SCHEDULE

** Syllabus schedule is subject to change*

Week One 09/13

Lecture - Syllabus, Introductions, History of Cinematography

Lab - Thaumatrope Lab Due 09/20 in Lecture (Bring Thaumatrope to class)

Week Two 09/20

Lecture - Semiotics, Cinematic Continuity

Lab - Stop Motion Lab

Quiz 1 - Due by 09/27 on D2L

Week Three 09/27

Color Science and Theory, Perspective and Illusions, Review of Quiz 1

Lab - Color Science

Week Four 10/04

Lecture - Exposure Triangle

Lab - Light Painting

Quiz 2 - Due by 10/11 on D2L

Week Five 10/11

Lecture - Optics and Depth of Field, Review Quiz 2

Lab - Depth of Field Calculations

Week Six 10/18

Lecture - Intro to Lighting

Lab - Optics

Quiz 3 - Due by 10/25 on D2L

Week Seven 10/25

Lecture - Specialized Cinematography, Review Quiz 3

Lab - Light Metering and Exposure

Week Eight 11/01

Lecture - Camera Movement, Screen Direction

Lab - Timelapse Lab

Quiz 4 - Due by 11/08 on D2L

Week Nine 11/08

Lecture - Screening TBD, Composition, Review Quiz 4

Lab - Shot Exercise: crafting a short film Due 11/15

Week Ten 11/15

FINAL EXAM

College Policies

Online Course Evaluations

Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is completely separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over three weeks. Students do not receive reminders once they complete the evaluation. Students complete the evaluation online in CampusConnect.

Academic Integrity and Plagiarism

This course will be subject to the university's academic integrity policy. More information can be found at http://academicintegrity.depaul.edu/. If you have any questions be sure to consult with your professor.

Academic Policies

All students are required to manage their class schedules each term in accordance with the deadlines for enrolling and withdrawing as indicated in the University Academic Calendar. Information on enrollment, withdrawal, grading and incompletes can be found at: cdm.depaul.edu/enrollment.

Students with Disabilities

Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential.

To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the Center for Students with Disabilities (CSD) at: csd@depaul.edu.

Lewis Center 1420, 25 East Jackson Blvd.
Phone number: (312)362-8002
Fax: (312)362-6544
TTY: (773)325.7296