

Lighting and Compositing I Remote Course Syllabus

Course Information

Course Number/Section ATCM 3307.0U1
Course Title Lighting and Compositing I
Term Summer 2021
Time Tuesday and Thursday 10am – 12:15pm

Professor Contact Information

Professor Peter McCord
Email Address peter.mccord@utdallas.edu
Office Location Animation suite
Online Office Hours Tues and Thurs 9am-9:45 on MS Teams

Course Modality and Expectations

Instructional Mode	Remote/Virtual: Synchronous online learning at the day and time of the class. The instructor delivers the instruction from home or the office. Students complete the course at a distance.
Course Platform	Blackboard Collaborate and MS Teams
Expectations	Using the software taught in class, students will be able to light an animated short using the lights as a story telling element, as well as achieving convincing realism with 3D light rigs.
Asynchronous Learning Guidelines	All lectures will be recorded and will be viewable after the listed class time. Assignments will have set due dates. There will be no quizzes or tests for this class. https://www.utdallas.edu/fall-2020/asynchronous-access-for-fall-2020/

COVID-19 Guidelines and Resources

The information contained in the following link lists the University's COVID-19 resources for students and instructors of record.

Please see <http://go.utdallas.edu/syllabus-policies>.

Class Participation

Regular class participation is expected regardless of course modality. Students who fail to participate in class regularly are inviting scholastic difficulty. A portion of the grade for this course is directly tied to your participation in this class. It also includes engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures (and/or labs). Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

Class Recordings

Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

The instructor may record meetings of this course. Any recordings will be available to all students registered for this class as they are intended to supplement the classroom experience. Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

Class Materials

The Instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course, however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

Closed Caption versions of all lectures will be posted immediately after the live lecture session.

Course Pre-requisites, Co-requisites, and/or Other Restrictions

- ATCM 2310

- Access to high speed internet
- Access to Hardware (Mac or PC desktop or laptop) that can run the following **required** software:
 - o Maya 2019 or higher version. Arnold will come with this.
 - o Latest version of the Foundry's Nuke. Non commercial or student version is okay.
 - o Blackboard Collaborative (via eLearning)
 - o Microsoft Teams
 - o Adobe Photoshop or any digital painting program(optional)
 - o Adobe Media Encoder (Can also use Handbrake)

Course Description

This course is an in-depth examination of Lighting and Composition fundamentals and techniques for use in computer generated art. Students will learn to create custom lighting setups and how lighting affects mood, time, and viewer perception. All models will be supplied for the course.

Student Learning Objectives/Outcomes

Through the successful completion of this course students will:

- Develop an understanding of how lighting can affect the mood, time and the audience's perception of a scene.
- Apply that same understanding to creating lighting setups that perfectly reflect the current tone they are trying to achieve.
- Establish a methodology for analyzing and problem solving as it relates to 3D computer-generated forms
- Continue to develop the ability to offer informed and constructive, technical and aesthetic critiques of the work of peers and of self
- Develop a practical understanding of the specific computers and software used in the course

Course Outcomes:

- Using the software and equipment taught in class, students will be able to light an animated short using the lights as a story telling element, as well as achieving convincing realism with 3D light rigs.

Required Textbooks and Materials

Required Materials

Headphones or Speakers
Microphone

Suggested Course Materials

Suggested Materials
Web Cam

External hard drive for saving data

Textbooks and some other bookstore materials can be ordered online or purchased at the [UT Dallas Bookstore](#).

Technical Requirements

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on the [Getting Started with eLearning](#) webpage.

Course Access and Navigation

This course can be accessed using your UT Dallas NetID account on the [eLearning](#) website.

Please see the course access and navigation section of the [Getting Started with eLearning](#) webpage for more information.

To become familiar with the eLearning tool, please see the [Student eLearning Tutorials](#) webpage.

UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The [eLearning Support Center](#) includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

Communication

This course utilizes online tools for interaction and communication. Some external communication tools such as regular email and a web conferencing tool may also be used during the semester. For more details, please visit the [Student eLearning Tutorials](#) webpage for video demonstrations on eLearning tools.

Student emails and discussion board messages will be answered within 3 working days under normal circumstances.

Distance Learning Student Resources

Online students have access to resources including the McDermott Library, Academic Advising, The Office of Student AccessAbility, and many others. Please see the [eLearning Current Students](#) webpage for more information.

Server Unavailability or Other Technical Difficulties

The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online [eLearning Help Desk](#). The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

Academic Calendar

***All descriptions and timelines are subject to change at the discretion of the instructor.**

COURSE SCHEDULE

Week 1 (May 25) Intro to Lighting in Maya

- Intro to lighting within Maya
- What is lighting and comp and why we do what we do
- **Assignment 1 – Movie Watching**

Week 1 (May 27) Intro to Maya UI

- Basic Maya interface

Week 2 (June 1) Intro to Maya Lights and 3 Point Lighting

DUE: Assignment 1 – Movie Watching

- Creating Lights in Maya and using the Arnold render engine
- Arnold Docs
- **Assignment 2 – Intro to lighting in Maya**

Week 2 (June 3) Intro to Maya lights cont.

- More lights and more Arnold because there's a lot
- Understanding which light types to use
- In class lighting demo

Week 3 (June 8) Maya Hypershade and Light Linking

- **DUE: Assignment 2 – Intro to lighting in Maya**
- Critiques of Assignment 2
- Maya Lights Cont., Maya Hypershade, Light Linking, shaping objects with lights
- **Assignment 3 – Lighting Hard Surface and Organic Objects**

Week 3 (June 10) Atmosphere, Blockers, and Render Approximation

- Arnold light filters: Blockers, Gobos, and Decay.
- Adding atmosphere to your scenes
- In class lighting assignment

Week 4 (June 15) Lighting an Interior and Intro to Nuke

- **DUE: Assignment 3 – Lighting Hard Surfaces and Organic Objects**
- Critiques of Assignment 3
- Lighting an Interior Basics and Intro to Nuke
- Lighting interior: what about the props?
- In class interior lighting assignment
- **Assignment 4 – Lighting an Interior**

Week 4 (June 17) Preparing your Renders for Compositing

- The all seeing eye calls to you and tells you to open Nuke
- Render stats and setup
- Nuke UI and basics
- Basic Nuke nodes
- In class interior lighting cont

Week 5 (June 22) Even more Nuke

- Breaking up renders into FG, MG, BG and why?
- Basics of compositing different passes
- In class comp assignment

Week 5 (June 24) Arnold AOVs

- Arnold AOV passes
- Multi Channel EXRs
- How to use these in Nuke
- In class comp assignment cont.

Week 6 (June 29) Lighting and Cinematography, REFERENCE IS EVERYTHING

- **DUE: Assignment 4 – Lighting an Interior**
- Critiques of Assignment 4
- Cinematography and Lighting and Color Keys
- In class assignment integrating objects to plate
- **Assignment 5 – Lighting and Integrating Characters**

Week 6 (July 1) Planning your lighting and integrating CG assets

- In class assignment integrating objects to plate
- Comping AOVs
- Shadow Pass
- Matte Pass

Week 7 (July 6) Final Project

- **DUE: Assignment 5 – Lighting and Integrating Characters**
- Discuss Final Project and Teams
- **Final Project**

Week 7 (July 8) Final Project

- Breaking down final project
- Lighting as a team and best practices
- Constraining lights

Week 8 (July 13) Batch Rendering and Render Sequences

- **DUE: Week 1 Team Document and Color Keys**
- How to batch render and render sequence

Week 8 (July 15) Managing Image Sequences and Files

- Best practices with rendering image sequences
- Being aware of render times and hard drive space

Week 9 (July 20) Putting Everything Together in Nuke

- How to write out final image sequences

Week 9 (July 22) Putting Everything Together in Nuke

- How to take final image sequences and create a final movie

Week 10 (July 27) Final Project Prep

- Teams should be checking final continuity

Week 10 (July 30) Final Project Prep

- Teams should be checking final continuity

Week 11 (Aug 3) Final Class

- **Final Presentations**

Grading Policy:

Students must demonstrate satisfactory achievement of course objectives through fulfillment of course assignments and by contributing to class discussions and critiques. Course assignments will require students to use software and equipment available at the ATEC computer labs. Course evaluation will be based upon the following.

Grades by percentage from total points:

A	94 – 100%
A-	90 – 93%
B+	88 – 89%
B	84 – 87%
B-	80 – 83%
C+	78 – 79%
C	74 – 77%
C-	70 – 73%
D+	68 – 69%
D	64 – 67%
D-	60 – 63%
F	Below 60 is failing

Assignment Point Values:

- Assignments 1 – 3: 10 points each
- Assignments 4 and 5: 20 points
- Final Project: 30 points
- Total: 100 points

Homework Assignments:

Students will use their UTD Box.com accounts (CometSpace) to turn in homework assignments. The instructor will send an invitation to the student's UTD email the first week of class that will include further instructions regarding turning in homework. **Students MUST bring a copy of their homework to class each week.** Homework assignment instructions, rubrics, and grades are posted on eLearning. More information about eLearning can be found here:

<https://www.utdallas.edu/elearning/students/>. Information about UTD students Box.com accounts can be found here: <http://www.utdallas.edu/cometspace/>

Taking Notes:

Students are expected to take detailed notes during in-class demonstrations and lectures. There will be times the student will be asked to turn off all computers and electrical devices, so students should be prepared to take notes with a notebook and pen/pencil.

Late Assignments:

Adherence to deadlines is expected. Late assignments will not be accepted. It is the individual student's responsibility to keep track of the goals and deadlines and to present the work to the class and instructor on the specified dates.

Class Attendance:

This course heavily depends on in-class and online demonstration and lectures. Students who fail to attend online lecture or watch the posted lectures regularly are inviting scholastic difficulty. Missing class will not directly impact your grade, however missing class content will indirectly impact your grade as you will miss out on key concepts and/or announcements. You do so at your own risk.

Making up missed work:

Makeups are available only to students who have a legitimate excuse for missing an exam, such as illness, scheduled job interview out of town, athletic team event out of town, death in the immediate family, etc. If you know in advance that you must miss an exam, give a **written notice to the instructor in advance, and bring documentation to support your anticipated absence.** If you miss an exam unexpectedly because of last minute illness or accident, submit a note to the instructor when you return to campus (or as e-mail attachment if you will be away for some time) with documentation of your situation.

Class Participation and Classroom Citizenship:

- Mute mic until you have a question. You can use the “raise hand” button in the Collaborative to signal the professor
- Do not talk when others (the instructor, guests, and fellow students) are talking.
- Participate in critique sessions and class discussions. You can learn a great deal from critique on other students' work as well your own.

While the instructor or a guest is lecturing or demonstrating, you should be listening to the lecture or observing the demonstration, and taking notes.

Email Use:

Students are responsible for regularly checking their UTD email.

The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. All official student email correspondence

will be sent only to a student's UT Dallas email address and UT Dallas will only consider email requests originating from an official UT Dallas student email account. This allows the University to maintain a high degree of confidence in the identity of each individual's corresponding via email and the security of the transmitted information. The University of Texas at Dallas furnishes each student with a free email account that is to be used in all

communication with university personnel. The Department of Information Resources provides a method for students to have their UT Dallas mail forwarded to other email accounts. To activate a student UT Dallas computer account and forward email to another account, go to <http://netid.utdallas.edu>.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

“As a Comet, I pledge honesty, integrity, and service in all that I do.”

Academic Support Resources

The information contained in the following link lists the University’s academic support resources for all students.

Please go to [Academic Support Resources](#) webpage for these policies.

Technical Support:

If you experience any issues with your UT Dallas account, contact the UT Dallas Information Resources Help Desk: assist@utdallas.edu or call 972-883-2911.

UT Dallas provides eLearning technical support 24 hours a day/7 days a week. The services include a toll free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service. Please use this link to access the UTD eLearning Support Center: <http://www.utdallas.edu/elearninghelp>.

Field Trip Policies, Off-Campus Instruction and Course Activities

Off-campus, out-of-state, foreign instruction/travel, and course-related field trip activities are subject to state law and University policies and procedures regarding travel and risk-related activities.

Detailed information regarding this policy, in accordance to Texas Education Code, Section 51.950, can be accessed at the UT Dallas Policy Navigator,

<http://policy.utdallas.edu/utdbp3023>, and at

<http://www.utdallas.edu/administration/insurance/travel>. Additional information is available from the office of the school dean.

Student Conduct and Discipline:

The University of Texas System (Regents' Rule 50101) and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UT Dallas online catalogs (<http://catalog.utdallas.edu>).

The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the Student Discipline and Conduct, UTDSP5003 (<http://policy.utdallas.edu/utdsp5003>). Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SSB 4.400, 972-883-6391) and online at <http://www.utdallas.edu/deanofstudents>.

A student at the University neither loses their rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating its standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

Academic Integrity:

Academic Dishonesty: The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrates a high standard of individual honor in his or her scholastic work.

Academic dishonesty can occur in relation to any type of work submitted for academic credit or as a requirement for a class. It can include individual work or a group project. Academic dishonesty includes, plagiarism, cheating, fabrication and collaboration/collusion. In order to avoid academic dishonesty, it is important for students to fully understand the expectations of their professors. This is best accomplished through asking clarifying questions if an individual does not completely understand the requirements of an assignment.

Additional information related to academic dishonesty and tips on how to avoid dishonesty may be found here: <http://www.utdallas.edu/deanofstudents/maintain/>.

Copyright Notice:

It is the policy of the University of Texas at Dallas to adhere to the requirements of the United States Copyright Law of 1976, as amended, (Title 17, United States Code), including ensuring that the restrictions that apply to the reproduction of software are adhered to and that the bounds of copying permissible under the fair use doctrine are not exceeded. Copying, displaying, reproducing, or distributing copyrighted material may infringe upon the copyright owner's rights. Unauthorized distribution of copyrighted material, including unauthorized peer-to-peer file sharing, may subject students to appropriate disciplinary action as well as civil and criminal penalties. Usage of such material is only appropriate when that usage constitutes "fair use" under the Copyright Act. For more information about the fair use exemption, see <http://copyright.lib.utexas.edu/copypol2.html>. As a UT Dallas student, you are required to follow UT Dallas' copyright policy (UTDPP1043 at <http://policy.utdallas.edu/utdpp1043>) and the UT System's policy at <http://www.utsystem.edu/ogc/intellectualproperty/copyrighthome.htm>.

Withdrawal from Class:

The administration at UT Dallas has established deadlines for withdrawal from any course. These dates and times are published in the Comet Calendar (<http://www.utdallas.edu/calendar>) and in the Academic Calendar (<http://www.utdallas.edu/academiccalendar>). It is the student's responsibility to handle withdrawal requirements from any class. In other words, a professor or other instructor cannot drop or withdraw any student unless there is an administrative drop such as the following:

- Have not met the prerequisites for a specific course
- Have not satisfied the academic probationary requirements resulting in suspension
- Judicial affairs request
- Have not made appropriate tuition and fee payments
- Enrollment is in violation of academic policy
- Was not admitted for the term in which they registered

It is the student's responsibility to complete and submit the appropriate forms to the Registrar's Office and ensure that he or she will not receive a final grade of "F" in a course if he or she chooses not to attend the class after being enrolled.

Student Grievance Procedures:

Procedures for student grievances are found in university policy UTDSP5005 (<http://policy.utdallas.edu/utdsp5005>). In attempting to resolve any student grievance regarding disputes over grades, application of degree plan, graduation/degree program requirements, and thesis/and dissertation committee, adviser actions and/or decisions, evaluations, and/or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originated.

Incomplete Grade Policy:

As per university policy, incomplete grades may be given, at the discretion of the instructor of record for a course, when a student has completed at least 70% of the required course material but cannot complete all requirements by the end of the semester. An incomplete course grade (grade of 'I') must be resolved completed within the time period specified by the instructor, not to exceed eight (8) weeks from the first day of the subsequent long semester. Upon completion of the required work, the symbol 'I' may be converted into a letter grade (A through F). If the grade of Incomplete is not removed by the end of the specified period, it will automatically be changed to F.

AccessAbility Services:

It is the policy and practice of The University of Texas at Dallas to make reasonable disability-related accommodations and/or services for students with documented disabilities. However, written notification from the Office of Student AccessAbility (OSA) is required (see <http://www.utdallas.edu/studentaccess>). If you are eligible to receive disability-related accommodations and/or services and to ensure accommodations will be in place when the academic semester begins, students are encouraged to submit documentation four to six weeks in advance. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact the Office of Student AccessAbility for a confidential discussion.

The Office of Student AccessAbility provides:

1. Academic accommodations for eligible students with a documented permanent physical, mental or sensory disability
2. Facilitation of non-academic and environmental accommodations and services
3. Resources and referral information, and advocacy support as necessary and appropriate.

OSA is located in the Student Services Building, suite 3.200. They can be reached by phone at 972-883-2098, or by email at studentaccess@utdallas.edu.

Religious Holy Days

The University of Texas at Dallas will excuse a student from class or other required activities, including examinations and travel time for the observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, of the Texas Tax Code.

Students are encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment.

Excused students will be allowed to take missed exams or complete assignments within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum

of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment. If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the President of UT Dallas or from the President's designee. The chief executive officer or designee must take into account the legislative intent of Texas Education Code 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.

Resources to Help You Succeed:

The Office of Student Success operates the Student Success Center (SSC, <http://www.utdallas.edu/studentsuccess>), which offers assistance to students in the areas of writing, mathematics, communication, multiple science fields, reading, study skills, and other academic disciplines. These services are available through individual and small group appointments, workshops, short courses, and a variety of online and instructional technologies. All students enrolled at UT Dallas are eligible for these services.

The **Math Lab** gives short-term and semester long support for a variety of introductory and advanced mathematics courses. Students may drop in to visit with a math tutor on a regular basis. Comet card is required.

The **Writing Center** offers a collaborative learning environment for one-to-one and small group assistance with general and advanced writing assignments and overall writing skills. Scheduling an appointment is strongly recommended, but walk in appointments are possible if a tutor is available.

The **Peer Tutoring** program offers free tutoring assistance in multiple locations for many of the historically challenging undergraduate subjects at UT Dallas. Tutoring sessions, offered every weekday on a drop-in basis, are one-on-one or in a small group format. The sessions are designed to meet students' individual questions and needs related to course/subject concepts. All peer tutors are current UT Dallas students who made an A- or better in the course and have a strong faculty/staff recommendation. Students should check the Student Success Center website each semester for subject offerings and session times.

The **Peer-Led Team Learning (PLTL)** program provides an active, engaged learning experience for students who meet in small groups once a week with a Peer Leader who helps guide them through potentially difficult gateway course. Students that attend sessions regularly typically earn a half to a whole letter grade higher than students that do not participate in the PLTL program.

Supplemental Instruction (SI) provides free, peer-facilitated weekly study sessions for students taking historically difficult courses. SI sessions encourage active, collaborative learning based on critical thinking and transferable study skills. SI leaders attend lectures, take notes, and read assigned material just like the enrolled students. Students should check the SSC website for subject and session times.

The **Communication Lab (CommLab)** offers one-on-one and group consultations where you will gain practical feedback for improving oral and group presentations.

Success Coaches are available for individual student appointments to discuss study skills, time management, note taking, test taking and preparation, and other success strategies.

The Student Success Center's main office is located in the McDermott Library Building and can be contacted by calling 972-883-6707 or by sending an email to ssc@utdallas.edu.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.