# Instructor: Michael Nitsche

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**Office Hours:** MW 10-11

**Course Meets:** MWF 11-12, Room TBC

**LMC 2730 Constructing the Moving Image**

**Pre-requisites:** LCC 2100 Minimum Grade of C or LMC 2850 Minimum Grade of C or LMC 2700 Minimum Grade of C or LCC 2700 Minimum Grade of C or LMC 2720 Minimum Grade of C or LCC 2720 Minimum Grade of C

# Course Description:

Moving images have developed from various early projections to today’s real-time computer imagery. This course will provide references to the history and context of these moving image worlds while aiming at a better understanding of the condition of the real-time 3D image as part of this moving image culture. We will discuss the evolution of the moving image from its earliest forms to today’s digital landscape with the help of screen studies. Along the way, the course outlines key criteria for moving images such as mise-en-scene, cinematography, and montage and investigates how these classic criteria manifest in the digital domain. This is not a course about game design but it does touch on video games as media as we will look at how computer game worlds and other digital representations utilize this kind of moving images.

The moving image culture we are exploring has shaped a number of different niches in digital art production, among others it is used in: digital performance, machinima, in-game cut scenes, pre-visualization, television production, and film production. Given the cross-connections to other disciplines and the variety of the outcomes, students should expect the course to constantly move back and forth between film, games, and other media.

The course is a practice/ theory class where students implement prototypes and projects to explore specific questions in the construction of the moving image. It is highly advisable to work on your own laptop.

**The Projected Learning Goals of this course are:**

* familiarity with the basics of screen studies
* ability to analyze a moving image based on mise-en-scene, editing, and camera
* ability to do the same for interactive piece (such as a game or a web site)
* combine interaction design and image design in one project
* familiarity with the necessary tools to do so

Those provide a number of more general Learning Outcomes.

**Learning Outcomes for STAC/ LMC students:**

* Textual/Visual Analysis: Students will learn to read, analyze, and interpret not only cultural projects such as film, literature, art, and new media, but also scientific and technical documents.
* Interpretive Frameworks: Students will become familiar with a variety of social, political, and philosophical theories and be able to apply those theories to creative and scientific texts, as well as to their own cultural observations.
* Communication Skills: Students will be able to gather, organize, and express information clearly and accurately, with sensitivity to will be able to do so both by using traditional media and by tapping the potential of new digital media.

**Learning Outcomes for CM students:**

* Students understand and apply the mathematical principles and computational affordances appropriate to creative digital expression.
* Students can create digital artifacts with an awareness of history, audience, and context.
* Students can appreciate and evaluate future trends in the development of digital media.
* Students can work effectively in teams to accomplish a common goal.

**Required Texts**:

Our readings will be online and come from various sources but a key reference is:

* Bordwell, David/ Thompson, Kristin, *Film Art: An Introduction*, (New York: McGraw-Hill Inc., various editions)

**Workload:**

In addition to the theoretical work, we will work and test our ideas directly with real-time moving image productions in practical experiments. One session each week will be dedicated to practical work and experiments.

The two key technologies we will apply are 3D modeling basics (using Maya) and real-time 3D visualization in a 3D engine (using Unity).

The last third of the course will feature small teams working on individual productions that have to be designed, implemented, and presented by students. Additional film screenings and group meetings will be necessary.

Participating students will have to deliver a detailed moving image analysis and an equally detailed “games as moving images” analysis. Students will write a ½ page (~300 words) for each week’s reading assignment. They will work on practical projects that lead up to a final group project, and are expected to participate actively in the course discussions. Knowledge of programs such as Photoshop and other image processing programs is expected or has to be acquired out of course.

# Grading:

|  |  |  |
| --- | --- | --- |
|  | Percentage | Some relevant elements |
| **Participation seminar + participation lab** | 20% | Attendance, active in discussions, delivery of text summaries, active in design meetings, teamwork |
| **Maya comic** | 13% | Maya exercise; delivery on time, learning curve, interest, show some learnt skills; experimentation with different features of the technology |
| **Unity scene** | 13% | Unity exercise; delivery on time, learning curve, interest, show some learnt skills; experimentation with different features of the technology |
| **Pecha Kucha** | 10% | Cover most relevant points in time; fluent presentation |
| **Comparative Scene analysis** | 14%% | Connection to topics discussed during the course; development of your argument; form of the presentation; logic and quality of the paper accompanying the analysis (3-5 pages) |
| **Final project** | 30% | Participation, imagination, courage, technical skills, teamwork(!), work with compromises without loosing quality; NOTE that your group project’s grade will serve as guideline for individual grades but your personal grade might vary from it depending on your involvement in the project |

100-90% = A

89-78% = B

77-64% = C

63- = D

Grading of individual pieces will be in percentage.

Late submissions lead to automatic reductions of the grade unless a valid excuse is provided. Any 1 day delay, meaning anything after 5pm of the due day, will have 15% reduced from the grade; any 2 day delay will have 30% reduced, 3 day delays will not be accepted.

# Graded Assignments (Detail):

Throughout: you will have to write a ½ page summary (~300 words) of the week’s reading assignment every week; this *summary* should refer the main key elements of the text at hand and your *own opinion* about them; format: informal but style not too personal, what counts is that you make clear that you have understood the text and you have an own opinion; these summaries will not be individually graded but are part of your participation grade.

*You hand in*: submit your summary on T-Square before class on the day it is due.

Maya comic – create at least three textured objects in Maya; we will select a overall theme for the comics to provide a thematic frame.

*You hand in*: submit the full Maya project folder on T-Square (not only the scene!); submit 3 renderings of your objects that include a perspective toward the objects and tell a short story/ situation; this story can be basic but the way you position, light, and present the objects should support your story idea.

Pecha Kucha – we will form groups of 3-5 students; your group will analyze a short movie scene and present their observations to the whole class in the style of a to-the-point and fast powerpoint talk Pecha Kucha style; make sure you focus this analysis and cover the most important parts of the piece at hand effectively

*You hand in*: submit the powerpoint slides on T-Square; but you will be graded mainly on the performance in class.

Unity scene – you will use your comic as a storyboard to set up a scene in Unity that includes your objects, camera movements, sound, and effective mise-en-scene to stage a dramatic scene that involves one simple interactive moment using the tools available; length: approx. 90-180 seconds

*You hand in*: the full project zipped up and the main application in there as self-standing web app built in Unity; submit on T-Square

Comparative Scene Analysis – a 2 page analysis using the ACM-style template, find two related scenes/ moving image sequences: one an interactive digital one, the other a classic film moment; compare them and find the specific ways in which each scene applies expressive means of the moving image; apply texts we have discussed; google your topic and section; contextualize the analysis in the framework of this course

*You hand in*: you submit your analysis on T-Square as .pdf of the 2 pages using the template (deadline: 5pm of the due day)

Group Project – we will form groups of ~3-5 students working on final group projects; the topic remains the overall topic; the final project has four stages:

*first* you will present your project in a powerpoint presentation to the class; this will clarify: who does what on the project? What is the project about? What is its name? How will it look and feel and work?

*second* you will show a running technical prototype that shows your basic concept up and running (informal during Practice session)

*third* produce the piece;

*finally* you will present your full-blown project in class

*you hand in*: submit the whole project on T-Square; what you submit: a simple web site (NO FLASH!) that contains all the material of your project such as: design documents, sketches, Maya files of all objects involved; all necessary Unity files and resources (!); your powerpoint presentation; a ~2 page post-mortem write-up of the piece using the ACM template; and optional: a .pdf poster.

**Students with Disabilities** should self-report to the Access Disabled Assistance Program for Tech Students (ADAPTS) at:

Smithgall Student Services Building, Suite 210  
404-894-2563 (V)  
404-894-1664 (TDD)  
[adaptsinfo@gatech.edu](mailto:adaptsinfo@gatech.edu)

**Honor Code**: All work you turn in for this class must be your own work, with all outside reference sources properly cited and acknowledged. According to Section 3 of the [Academic Honor Code](http://www.catalog.gatech.edu/rules/18b.php),

Students are expected to act according to the highest ethical standards. The immediate objective of the Honor Code is to prevent any students from gaining an unfair advantage over other students through academic misconduct. Academic misconduct is any act that does or could improperly distort student grades or other student academic records. Such acts include but need not be limited to the following:

* + Possessing, using, or exchanging improperly acquired written or verbal information in the preparation of any essay, laboratory report, examination, or other assignment included in an academic course;
  + Substitution for, or unauthorized collaboration with, a student in the commission of academic requirements;
  + Submission of material that is wholly or substantially identical to that created or published by another person or persons, without adequate credit notations including authorship (plagiarism);
  + False claims of performance or work that has been submitted by the claimant;
  + Alteration or insertion of any academic grade or rating so as to obtain unearned academic credit;
  + Deliberate falsification of a written or verbal statement of fact to a member of the faculty so as to obtain unearned academic credit;
  + Forgery, alteration, or misuse of any institute document relating to the academic status of the student.

While these acts constitute assured instances of academic misconduct, other acts of academic misconduct may be defined by the professor.

Students must sign the Honor Agreement affirming their commitment to uphold the Honor Code before becoming a part of the Georgia Tech community. The Honor Agreement may reappear on exams and other assignments to remind students of their responsibilities under the Georgia Institute of Technology Academic Honor Code.

**A Further Note about Plagiarism:**

According to Dictionary.com, [plagiarism](http://dictionary.reference.com/browse/plagiarism?s=t) is defined as:

1. an act or instance of using or closely imitating the language and thoughts of another author without authorization and the representation of that author’s work as one’s own, as by not crediting the original author;
2. a piece of writing or other work reflection such unauthorized use or imitation.

In addition, other instances of plagiarism include, but are not limited to, putting a quotation around an entire article, and citing it, and turning that “quoted” article in as your work (even though this sounds ridiculous, people have done this before, hence why I bring it up); cutting and pasting more than 10% of your paper; improperly citing sources including forgetting to include a source on your works cited page or within the body of your texts; imitating the arguing style of another author without attribution; buying and turning in a paper from a term paper mill; forgetting to use quotation marks for a direct quotation; paraphrasing materials from a source without proper documentation; etc.

Students who engage in academic dishonesty may receive a zero on the assignment or fail the course. In addition, the instance will be reported to the Dean of Students who may take further action. If you have any questions involving these or any other issues regarding plagiarism, the Academic Honor Code, or what constitutes appropriate academic integrity, please talk to me or visit the [Academic Honor Code website](http://www.honor.gatech.edu/).

# Schedule:

Mon – theory session with reading assigned

Wed – theory/ discussion/ practice

Fri – practice session

**Week by Week Schedule**

|  |  |  |  |
| --- | --- | --- | --- |
| Mo | 7 Jan | Introduction to course |  |
| Wed | 9 Jan | Introduction to lab; Maya: interface; editors; basic creation tools  **Assignment**: Maya comic |  |
| Fri | 11 Jan | Maya |  |
| Mo | 14 Jan | Image, perspective and frame **Assignment**: Pecha Kucha of film analysis  (break into groups and analyze a short scene of a given movie) | Meadows;  McCloud |
| Wed | 16 Jan | Maya: deformations; polygon modifications; poly creation |  |
| Fri | 18 Jan | Maya |  |
| Mo | 21 Jan | MLK holiday |  |
| Wed | 23 Jan | Mise-en-scene | Bordwell/ Thompson – mise-en-scene |
| Fri | 25 Jan | Maya: advanced poly modifications (Boolean, merge); into textures |  |
| Mo | 28 Jan | **Due**: Pecha Kucha of film analysis |  |
| Wed | 30 Jan | **Due**: Pecha Kucha |  |
| Fri | 1 Feb | **Due**: Pecha Kucha (if needed)  **Assignment**: Comparative Scene Analysis |  |
| Mo | 4 Feb | Editing | Bordwell/ Thompson  Editing |
| Wed | 6 Feb | Editing 2  Maya: textures (+ tiling textures)  Maya: finish your first assignment |  |
| Fri | 8 Feb | **Due:** Maya comic |  |
| Mo | 11 Feb | Sound | Stockburger; Chion |
| Wed | 13 Feb | Unity: interface and workflow/ import  **Assignment**: Unity scene |  |
| Fri | 15 Feb | Unity: finish import |  |
| Mo | 18 Feb | Virtual Cameras creating space | Wulf; Nitsche |
| Wed | 20 Feb | Catch up day |  |
| Fri | 22 Feb | Unity: resources and assets; toward basic scripting |  |
| Mo | 25 Feb | Intermedia | Manovich; Jenkins |
| Wed | 27 Feb | Unity: scripting  **Due**: Comparative Scene Analysis |  |
| Fri | 1 Mar | Unity catch up day |  |
| Mo | 4 Mar | Interaction as Performance | Laurel; McGonigal |
| Wed | 6 Mar | Unity: finish your project |  |
| Fri | 8 Mar | **Due**: Unity project |  |
| Mo | 11 Mar | TBC Characters and puppets | Isbister; Kleist |
| Wed | 13 Mar | **Assignment:** final project  Design meeting of groups |  |
| Fri | 15 Mar | Design meeting of groups |  |
| Mo | 18 Mar | Spring Break |  |
| Wed | 20 Mar | Spring Break |  |
| Fri | 22 Mar | Spring Break |  |
| Mo | 25 Mar | Space as interface/ Material and immaterial space in HCI | Jacucci; DeSouza |
| Wed | 27 Mar | Review session of project ideas |  |
| Fri | 29 Mar | Review session of project ideas |  |
| Mo | 1 Apr | **Due:** presentation of group ideas |  |
| Wed | 3 Apr | **Due:** presentation of group ideas |  |
| Fri | 5 Apr | Work on project |  |
| Mo | 8 Apr | Work on project |  |
| Wed | 10 Apr | Work on project  **Due**: Technical prototype |  |
| Fri | 12 Apr | Work on project |  |
| Mo | 15 Apr | Work on project |  |
| Wed | 17 Apr | Work on project |  |
| Fri | 19 Apr | Work on project |  |
| Mo | 22 | Work on project |  |
| Wed | 24 | **Due:** Project in class presentation |  |
| Fri | 26 | **Due:** Project in class presentation |  |

# Technical skills to learn:

This is not a course about film production but one that builds on screen studies to look into the changed role of the moving image in the real time rendered digital age. In that regard, you will get an introduction into basic techniques of mise en scene, camera work, lighting, and sound. We will discuss these areas in film and in interactive media. This knowledge, then, will be applied to a digital real-time set up using the Unity engine. To generate your own objects and world basic 3D modeling skills are necessary as well as some visual programming skills.

Unity3D is installed in Skiles 318 and is available at <http://unity3d.com/unity/download/>

Maya is installed in Skiles 318 and is available at <http://students.autodesk.com/> .

# References:

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* Bordwell, David, and Kristin Thompson. 2004. Film Art. An Introduction. 7th ed. Boston: McGraw-Hill.
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* Salen, Katie. 2002. Telefragging Monster Movies. In Game On. The History and Culture of Videogames, edited by L. King. London: Laurence King Publ.
* Wolf, Mark J. P., ed. 2002. The Medium of the Video Game. 1st ed. Austin: University of Texas Press.