

**DePaul CDM – ANI 339-501**  
**3D Texturing and Lighting**

Winter quarter 2015

Monday & Wednesday afternoons from 1:30am – 3:00pm

Room: CDM 722, Loop Campus

**Instructor**

Heinz Schuller – contact [hschull@cdm.depaul.edu](mailto:hschull@cdm.depaul.edu) / 312-362-0037

Office Hours – (TBD) in Room 403

**Course Description**

Students will study the processes and techniques for creating shaders and lighting rigs for CG environments. Techniques in UV mapping will be explored for both environments and character creation. Lighting will be approached from the foundation of traditional cinematography, then move into technical implementation. Additional topics, including ambient occlusion and global illumination, will also be covered.

*PREREQUISITE(S): ANI 230 or GPH 250*

**Course Objectives**

*After completing this course, students will have:*

1. Achieved a working understanding of tools related to 3D lighting and texturing.
2. Become comfortable with basics of planned lighting workflow.
3. Understand fundamentals of how 3D lighting works in a professional production setting.
4. Be able to create compelling compositions.
5. Be able to create accurate, balanced UVW coordinates & layout
6. Be able to create descriptive, detailed and interesting textures & normal maps.

**Recommended Texts:**

*Advanced Maya Texturing and Lighting* - By Lee Lanier

John Wiley & Sons Inc. SBN: 0-471-79404-X

*Comment: Good Core Maya Techniques*

*Digital Lighting & Rendering* - by Jeremy Birn

New Riders; ISBN: 1562059548

*Comment: Very solid overview of CG techniques not tied to a specific software package*

*The Visual Story* - by Bruce Block

Focal Press; ISBN: 978-0-240-80779-9

*Comment: Excellent overview of Cinematography*

*Painting with Light* - By John Alton

University of California Press; ISBN: 0-520-08949-9

*Comment: Practical Cinema lighting by one of the masters of Film Noir (originally published in 1949, be warned that some of the language used is occasionally chauvinistic.)*

## **Class Schedule\***

*\*NOTE: Details of activities and assignments are subject to updates and/or revisions on-going. I will notify you in class, but please check on-line for the latest syllabus when needed.*

Week 1:

---

**Monday January 5**

**Wednesday January 7**

Week 2:

---

**Monday January 12**

**Wednesday January 14**

Week 3:

---

**Monday January 19**

**Wednesday January 21**

Week 4:

---

**Monday January 26**

**Wednesday January 29**

Week 5:

---

**Monday February 2**

**Wednesday February 4**

Week 6:

---

**Monday February 9**

**Wednesday February 11**

Week 7:

---

**Monday February 16**

**Wednesday February 18**

Week 8:

---

**Monday February 23**

**Wednesday February 25**

Week 9:

---

**Monday March 2**

**Wednesday March 4**

Week 10:

---

**Monday March 9**

**Wednesday March 11**

Week 11:

---

**Monday March 16 - 11:45am - 2:00pm - FINAL EXAM**

### **Course Management System & Class Work**

Assignments must be handed in on time. On time means your work is submitted through D2L (Desire To Learn system) by the specified time. Work submitted after the deadline may receive partial credit or no credit at the instructor's discretion. Students who use lecture time to finish assignments the day they are due may forfeit the right to hand in that assignment. Class time is for working with the material at hand, not finishing late assignments. Assignment due dates and times will be indicated on D2L.

### **Attendance:**

Student absences are not expected to exceed more than 2 absences. A third absence will result in the lowering of your final grade one full letter. **Any student missing 4 classes will be given a grade of "F" for the semester.**

Tardiness is defined as not being in the classroom when attendance is called or departing before the class has been formally dismissed by the instructor. Tardiness that exceeds thirty minutes will be counted as an absence. TWO late arrivals or early departures, or a combination of both, are counted as one absence. If you arrive late for class, it is your responsibility to make sure that you have been marked tardy rather than absent.

The allotted absences are to accommodate routine illness, weddings, car trouble, etc. Doctor appointments, advisor conferences, trips to supply stores and employment, etc. should not be scheduled to conflict with class. Faculty cannot be placed in the position of determining which absences are excusable and which are not. All students are expected to attend class on a regular basis. Prolonged illness should be verified by a physician and may require the student to withdraw from class if he/she cannot complete work in a comprehensive and timely manner.

The student is responsible for any lectures or assignments missed. If an assignment is due a week that you are absent, it is your responsibility to make sure it still arrives on time.

No incompletes will be given without documented proof of circumstances beyond your control.

### **Class Work**

Assignments must be handed in on time. On time is submitted through D2L by the pre-determined time. Work submitted after the deadline may receive partial credit or no credit at the instructor's discretion. Students who use lecture time to finish assignments the day they are due will forfeit the right to hand in that assignment. Class time is for working with the material at hand, not finishing late assignments. Assignment due dates and times will be indicated on D2L.

## Turning In Assignments:

All assignments handed in digitally must be in the following format (please note upper and lower case usage)

- o lastnameFirstname\_projectname.extension
- o example: SchullerHeinz\_projectOne.mb

Special Accommodations: If you have any special considerations please see the instructor so you can be accommodated.

**BACK UP YOUR WORK:** Failure of computer software and or Hardware will not be accepted as an extenuating circumstance for late projects or incomplete grades so back up your work daily. Maya features an 'incremental save' option – USE IT. Hardware or software failure is no excuse for academic or professional project failure .

## Grading

This is a rough breakdown of how final grades will be calculated. This is subject to change at the instructor's discretion with notice:

Weekly assignments: 40% of grade

Two "mini-project" assignments (2-week span): 30% of grade

Complex Scene final submission: 30% of grade

## Grade/Score Ranges

|                   |                   |                   |                 |
|-------------------|-------------------|-------------------|-----------------|
|                   | <b>A = 100-93</b> | <b>A- = 92-90</b> |                 |
| <b>B+ = 89-88</b> | <b>B = 87-83</b>  | <b>B- = 82-80</b> |                 |
| <b>C+ = 79-78</b> | <b>C = 77-73</b>  | <b>C- = 72-70</b> |                 |
| <b>D+ = 69-68</b> | <b>D = 67-63</b>  | <b>D- = 62-60</b> | <b>F = 59-0</b> |

### *Grade A:*

Not only did you successfully complete all assignments, you went above and beyond in working with your teammates and coming up with effective solutions.

### *Grade B:*

You have successfully completed all assignments, contributed equitably to group projects, and you demonstrate a solid understanding of the class topics.

### *Grade C:*

All work turned in.

### *Grade D:*

Requirements for projects are only partially fulfilled.

*Grade F:*

Student fails to meet minimum course requirements.

**Requesting an incomplete grade:**

An incomplete grade may only be assigned to a student if the student has experienced an extenuating circumstance near the end of the term, the student is in good standing in the class, and before the last day of the quarter before final exams. See:

<http://www.cdm.depaul.edu/Current%20Students/Pages/Grading-Policies.aspx>

**Standards for Achievement**

Students will be measured on the following criteria-

- Effective use of reference imagery
- Scene Design using visual components covered in class
- Lighting Creativity and Complexity
- Shader Creation
- Texture Creation
- UV Mapping Proficiency
- Aesthetic appeal of your artwork (this class will require you to excel as an artist, not simply understand how to operate a software package).

**Changes to Syllabus**

This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be thoroughly addressed during class, posted under Announcements in D2L and sent via email.

**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.

### **Statement on Academic Integrity and Plagiarism:**

University guidelines on academic integrity and plagiarism can be found on the Web and in the Student Handbook and are hereby incorporated in this document. The following items are not intended to contradict the university guidelines, but to emphasize or explain areas of particular note for this course.

- Plagiarism applies to any sort of material used on the Web, including for example sound, graphics or images, as well as text.
- Students are responsible for insuring that they use material only with permission and that, when such permission is subject to giving credit, they credit sources appropriately.
- Students who use images, text, sound, trademarks, or other materials developed or owned by others without their permission can be held legally liable. "Academic use" is not a legal defense.
- DePaul University and the professor take no responsibility for any student's use of materials developed or owned by others without their permission.

### **Reuse of materials:**

Anything developed or submitted for an employer or another course cannot be submitted for an assignment in this course without PRIOR permission of the instructor.

### **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:

<http://cdm.depaul.edu/enrollment>.

### **Notes regarding Class Participation:**

Active class participation includes, among other things, on-time attendance, taking part in lecture discussions, asking meaningful questions, completing homework assignments on a timely basis, participating in the class, Blackboard discussion forums, and volunteering to demonstrate one's website or other sites of relevance to the class. Students will have the opportunity to complete a self-evaluation of their class participation, which will be considered (but will not be the sole determinant) when computing the class participation portion of their grade.

### **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](mailto:csd@depaul.edu).

Lewis Center 1420, 25 East Jackson Blvd.

Phone number: (312)362-8002

Fax: (312)362-6544

TTY: (773)325.7296