

Shading Lighting and Texturing

ARTS 4355, SECTION 01

3 Credit Hours

Fall Semester, 2017

Class Location: Farrington 217
Class Meeting Times: Tuesdays, Thursdays 12:30-3:20pm
Instructor: Professor Jon Bryson
Office Location: Huntsville Campus, Art Complex, Bldg D, Room 106
Instructor Contact Information: (936) 294-XXXX
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Office Hours: M,W 2-4 T,R 9-11

COURSE DESCRIPTION

An in depth study of surfaces and shaders including: texture and image mapping, lighting for compositing, cel shading, and rendering methods. Prerequisite: ARTS 1313, ARTS 1314, ARTS 1315, ARTS 2323, and ARTS 3344. Credit 3.

COURSE OBJECTIVES

After completing this course, students will be able to demonstrate:
Understanding of techniques for UV'ing of models and characters
Construction of Materials and Shaders
Rendering of images and video with a cinematic eye for lighting and color.

TEXTBOOK AND REQUIRED MATERIALS

Tutorial videos will be given as needed. But a great resource is Youtube.com, Lynda.com and pluralsight.com
Maya Learning Channel for Maya tutorials
<https://www.youtube.com/user/MayaHowTos>

ATTENDANCE POLICY

STUDENTS ARE RESPONSIBLE FOR BEING IN ATTENDANCE FOR CLASS. **S**TUDENTS MAY MISS THREE CLASS MEETINGS. **A**BSENCES BEYOND **T**HREE WILL RESULT IN THE STUDENT'S GRADE BEING DROPPED BY ONE LETTER GRADE FOR EACH ABSENCE.

STUDENTS ARE EXPECTED TO ARRIVE ONTIME. **A**TTENDANCE WILL BE TAKEN EVERY CLASS MEETING, IF A STUDENT IS NOT PRESENT DURING ATTENDANCE TAKING THEY WILL BE MARKED ABSENT.

GRADING POLICY

Grades are determined on a weekly basis. Determined on a number of factors.

Professionalism - 10 Points/ class meeting

Students will be in class on time, outgoing, excited for class and well prepared to work. Students must also give feedback in critiques and participate in class discussions/activities.

Homework - 50 points / Week Students are required to complete assignments and turn in on time. Homework is due at the beginning of class, late homework will be accepted 1 week for 50% deduction.

Midterm - 200 Points Midterm project is an assessment of student's skills and techniques.

Final - 400 Points Final Project is an end term assessment of student skills and techniques.

Revisions - Students are encouraged to revise work and turn in up to one week after initial deadline to receive points back onto the grade. Assignments not turned in on time are not eligible for revisions.

Late Work Policy and Makeup Assignments -

All assignments are due at the beginning of class or when assigned. Failure to turn in assignments will result in a 0 in the gradebook. Assignments turned in late will be graded up to 1 week late with a deduction of 50%. Assignments turned in past 1 week late will not be accepted for any grade.

Extra Credit - Students that reach out to professionals in the industry will be rewarded with points. Reaching out can be done through a one on one interview with the artist or having the artist give a critique of the student's work. Students are responsible for taking notes, recording or screenshotting the conversation with artists as proof.

Work submitted on time by email as a document or a picture of a project will not be considered late if you have mitigating circumstances, including documentation, that keep you from attending class. The list of accepted and approved mitigating circumstances are below:

- a. Death of an immediate family member
- b. Student illness requiring hospitalization (this includes mental health issues)

- c. Illness of an immediate family member where the student is the primary caretaker
- d. Illness of an immediate family member where the family member is the primary financial support
- e. Abusive relationships
- f. Divorce proceedings
- g. Previously undocumented disability
- h. Work-related transfer during the period
- i. Change in work schedule during the period
- j. Natural disaster
- k. Family emergency
- l. Financial hardship such as foreclosure or eviction
- m. Loss of transportation where there are no alternative means of transportation
- n. Documentation from a Professional Counselor
- o. A doctor documented illness of the student for a significant period of time
- p. Military deployment

NOTE - IT IS THE RESPONSIBILITY TO COMMUNICATE WITH YOUR INSTRUCTOR IF YOU MISS CLASS FOR ANY REASON. BY DOING THIS, ASSIGNMENTS CAN BE COMMUNICATED AND ARRANGEMENTS CAN BE MADE IF NEEDED.

Technology requirements: Maya 2016+ and an external hard drive (minimum)
Extra Hard drive/or online backup resource such as Copy, Dropbox, or Google Drive is highly suggested.

Backups DAILY backups are a necessity and requirement for this class. In addition to having a portable hard drive for your project. It is insisted upon that your project is backed up onto another hard drive (NOT your PC's internal HDD) or a cloud service such as google drive, Copy, Dropbox, Box. Many of these give a lot of free space.

Classroom/Lab Policies: Please do not answer cell phones, text, or peruse websites that are NOT in connection with the class. If you have to take a call, go outside of the classroom.

- No eating or drinking in the classrooms or labs. Anyone caught in violation

of this policy will be asked to leave the classroom.

- Class time - is designated to set direction, to allow for discussion and demonstration of new concepts, techniques, give critiques and feedback on work completed. It is not expected that students will complete assigned projects during class hours. For this class you should anticipate spending a minimum of 4 hours per week outside of class completing assignments. If you plan to work at school please check class and lab schedules for available space.
- Students are responsible for submitting all work on the syllabus regardless of whether they are reminded in class or not. Reading the syllabus is the student's responsibility

TENTATIVE COURSE OUTLINE

Week 1 8/24

Thurs

Introduction to the class and syllabi. Meet students and discuss topics to be covered.

Topics to be Discussed.

Basic Lighting Types in Maya using Mental Ray

Basic Shader Types in Maya using Mental Ray and Maya Shaders.

Assignment given : Students will Light and create basic shaders for a scene they create themselves.

Week 2 8/29 - 8/31

Tues

Critique on homework.

Creating materials with bump, specular and reflective qualities.

Layered Shaders

Procedural shaders.

Toon Shaders

Assignment given: Students will create a 3 material shaders and apply it to a scene they build. Turn in 3 images next week.

Thurs

Continuing procedural textures. Various nodes in the hypershade.

Lighting tips and help.

Week 3 9/5-9/7

Tues **Photoshop Textures and Introduction to UV's**
Critique on Homework
Assignment given: Students will unwrap One simple character and paint textures. Turn in 3 images next week.

Thurs **UV unwrapping continued and Photoshop work.**

Week 4 9/12 - 9/14

Tues **UV and Photoshop texturing continued. Cover Bump map painting.**
Assignment given: Students will create a scene, lighting and texture the scene utilizing various maps.

Thurs **UV unwrapping and Photoshop textures.**

Week 5 9/19 - 9/21

Tues **Critique on Homework**
Camera Movement and Batch rendering. Basic Compositing covered.
Assignment Batch render 120 frames with a camera move of a project completed so far.

Thurs **Continued work on batch rendering and compositing.**

Week 6 9/26-9/29

Tues **Displacement Maps and Midterm Assigned.**
Thurs **Work on Midterm.**

Week 7 10/3 - 10/5

Tues **work on midterm**
Thurs **Work on Midterm.**

Week 8 10/10 -10/12

Tues **Review Midterm Projects**
Indirect Lighting and Caustics. Creating manual Indirect lighting.
Assignment Given: Use Indirect lighting to light an Interior Scene
Thurs **Work on Indirect Lighting assignment.**

Week 9 10/17-10/19

Tues Physical Sun Sky and Gamma Corrections

Assignment Given: Create two outdoor scenes with Physical Sun Sky and HDRI lighting. Turn in images next week.

Thurs

Week 10 10/24-10/26

Tues Render Passes and Compositing in After Effects

Batch render a new or preexisting scene with Render Passes and composite a single frame into a superior composition using passes.

Thurs

Week 11 10/31-11/2

Tues Mental Ray Materials

Utilize Mental Ray Materials to texture 4 models seeking to create specific material types chosen from a list given. Create an artistic scene within the parameters.

Thurs

Week 12 11/7-11/9

Tues Skin Shaders and MILA Materials.

Assignment Given: Use MILA materials to give a Character model lifelike skin appearance. Use photography to draw inspiration from.

Thurs Continue working on

Week 13 11/14-11/16

Tues Continue working on Skin Shaders.

Assignment Given: Continue working on the Character from last week and texture the clothing and a scene to place the Character in. Turn in 3 Images next week.

Thurs Continue working on assignment.

Week 14 11/21 Thanksgiving No class on 11/23

Tues Assign Final

Week 15 11/28-11/30

Tues Work on Final

Thurs Work on Final

Week 16 Finals Week 12/5 Meeting time TBD
Final Turn in

POLICIES REGARDING ACADEMIC DISHONESTY, STUDENTS WITH DISABILITIES, AND STUDENT ABSENCES ON RELIGIOUS HOLY DAYS CAN BE FOUND AT
[HTTP://WWW.SHSU.EDU/SYLLABUS/](http://www.shsu.edu/syllabus/)

ACADEMIC DISHONESTY

All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials. For a complete listing of the university policy, see: [Dean of Student's Office](#)

STUDENTS WITH DISABILITIES POLICY

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail disability@shsu.edu). They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Services for Students with Disabilities. For a complete listing of the university policy, see:

<http://www.shsu.edu/dotAsset/7ff819c3-39f3-491d-b688-db5a330ced92.pdf>

STUDENT ABSENCES ON RELIGIOUS HOLY DAYS POLICY

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. Section 51.911 (a) (2) defines a religious holy day as: "a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20...." A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed. For a complete listing of the university policy, see:

</dept/academic-affairs/documents/aps/students/861001.pdf>

Academic grievance procedures Policy (academic policy 3 861001)

<http://www.shsu.edu/dotAsset/bb0d849d-6af2-4128-a9fa-f8c989138491.pdf>

VISITORS IN THE CLASSROOM

Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance. Students wishing to audit a class must apply to do so through the Registrar's Office.

USE OF PHONE & TEXT MESSAGING IN THE CLASSROOM

(Possible text) Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus impedes the mission of the university. Please *turn off or mute your cellular phone and/or pager before class begins*. Inappropriate behavior in the classroom shall result, minimally, in a directive to leave class or being reported to the Dean of Students for disciplinary action in accordance with university policy.

DEPARTMENT OF ART BFA REVIEW

The purpose of the BFA Review is to ensure that students have learned basic principles and techniques needed for advanced art courses.

All Art students must successfully complete all of the Art Foundation courses and the BFA Review before being accepted into a BFA program in Computer

Animation, Photography, or Studio Art or Graphic Design. Graphic Design students must also pass a separate Graphic Design Review after the BFA Review.

The Art Foundation Courses are WASH, Drawing, and Foundations in Digital Art. (ARTS 1313, 1314, 1315, 1316, & 2313). Students must pass each course with a grade of C or higher to take the BFA Review and proceed to upper level courses.

The semester after all of the Foundation courses are complete, students must sign up for the BFA Review. Students should see an art advisor every semester to ensure they take the BFA Review on time. It should be taken the semester immediately following the completion of the Foundation Courses.

Students who do not pass the BFA Review may re-take it the following semester. Students who do not pass on the second attempt will not be allowed to continue as BFA majors, but may follow the degree plan for the BA in Art. Non-participation after signing up or being advised to sign up will count as a failure of that semester's review.

Graphic Design students must pass the BFA Review, complete Principles of Graphic Design (ARTS 2323) and participate in a BFA Review at the end of the semester that they are enrolled in Typography (ARTS 3322).

For more information on the BFA review see the Department of art web page: <http://www.shsu.edu/academics/art/review/>

DEFACING UNIVERSITY PROPERTY

Do not paint on concrete, asphalt, trees, sides of buildings, interior walls or floors of buildings etc. When using any kind of paint use a drop cloth or tarp to protect the surface from overspray. Defacing university property is prohibited by university policy. Students will be held responsible for the cost of damages to the facilities.

Department of Art Laptop requirement

Students in the Department of Art are required to own a laptop as specified by each BFA program. Macintosh laptops are strongly recommended and can be purchased at discounted rates for students. The specifications for each BFA program and links to the Apple Store can be found on the Department of Art website: <http://www.shsu.edu/academics/art/resources/laptop-initiative.html> . Students will be required to have laptops and the Adobe Creative Suite software in art courses that require computers. Laptops must meet or exceed the specifications described and be capable of interfacing with Department printers and other peripheral devices.

