ASTU 3460
Experimental 3D
Curry Hall Rm. 316
Tuesdays and Thursdays 2pm-4:50pm
Professor Martin Back
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Course Description
This course will provide a hands-on studio workshop for learning the fundamentals of and experimenting with 3D design in the powerful software environment VVVV. VVVV (hereafter referred to as 4V) is ‘a hybrid visual/textual live-programming environment for easy prototyping and development. It is designed to facilitate the handling of large media environments with physical interfaces, real-time motion graphics, audio and video that can interact with many users simultaneously.’

As the title of this course is ‘Experimental 3D’ we will be not be using 4V to create video games or animated models (although 4V is capable of such), rather we will be conducting experiments in a studio art environment toward the creation of art-efacts and artworks whose ultimate outcome is unknown.

Course Objectives
Gain familiarity and proficiency with the 4V software to create sophisticated and conceptually rigorous 3D animations.

Course Requirements
External hard drive, journal, a 3 button mouse, and 3-5 hours per week-outside of class time-engaged in assignments and tutorials. This hourly requirement will necessarily increase as the semester commences. You must also be willing to perform some basic math and Mac Users! orient yourselves to using Windows. This course will include in-class exercises, projects, quizzes, and lectures. Plan on a minimum of 2-3 hours of work outside of class for every hour of class. There are 168 hours in a week, so budget your time wisely. Projects and assignments will not be accepted after the due date. If the student is going to be absent on a due date she should make arrangements to turn in the assignment early. Lectures will not be repeated, therefore it is the student’s responsibility to make up any work or retrieve class notes due to an absence.

Required Materials
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Grading
Students will be graded upon projects (60%), attendance (20%), and participation (20%). Projects will be evaluated by their origination and conceptual clarity, evidence of technical development, adherence to deadline, and attention paid to detail and execution.
A=100-90 B=89-80 C=79-70 D=69-60 F= <60

Attendance Policy
It is your responsibility to attend class on time. Lateness by more than 10 minutes will result in an absence. You are allowed no more than FOUR absences. More than four absences will result in a WF or an F for the class. Any necessary absences known of in advance should be approved by the Professor within the first 3 weeks of class. These absences will, however, count against
the Four absence limit. An excused absence will only be granted in the case of an illness with a written doctor's note (presented to me as a physical copy) or a family emergency with provided documentation.

**PLAGIARISM**
Plagiarism is the unauthorized use or close imitation of someone else’s original work and will not be tolerated. Effort should be made to change images made by others so that they will not be construed as “borrowed” or “stolen.” Work that is plagiarized will not be accepted and may result in a failing course grade and/or expulsion from the University.

**AMERICAN DISABILITIES ACT**
“The College of Visual Arts and Design is committed to full academic access for all qualified students, including those with disabilities. In keeping with this commitment and in order to facilitate equality of educational access, faculty members in the College will make reasonable accommodations for qualified students with a disability, such as appropriate adjustments to the classroom environment and the teaching, testing, or learning methodologies when doing so does not fundamentally alter the course. If you have a disability, it is your responsibility to obtain verifying information from the Office of Disability Accommodation (ODA) and to inform me of your need for an accommodation. Requests for accommodation must be given to me no later than the first week of classes for students registered with the ODA as of the beginning of the current semester. If you register with the ODA after the first week of classes, your accommodation requests will be considered after this deadline. Grades assigned before an accommodation is provided will not be changed. Information about how to obtain academic accommodations can be found in UNT Policy 18.1.14, at www.unt.edu/oda, and by visiting the ODA in Room 321 of the University Union. You also may call the ODA at 940.565.4323.

**Blackboard**
Make sure that you can access Blackboard Learn System and that you are enrolled correctly in your course! Email your instructor immediately if you are not correctly enrolled. Your UNT email address will be the ONLY ONE used for communication with the instructor. Make sure that is working fine and check it often for announcements.

**Rules of the Classroom and Expected Behavior**
1. Absolutely no phone use during class.
2. Do not turn your computers on until I ask you to do so.
3. Shut down computers after class.
4. Participate in class discussions.
5. Respect your fellow students.

* I reserve the right to change the syllabus and modify the schedule at any time.

**Schedule**
Jan. 20 Tuesday
- Review of Syllabus
- Introductions
- Starting 4V for the first time.
- 4V Basic mouse functions.
- Hello World Tutorial

Jan. 22 Thursday
- Review of Basic Mouse Functions
- Creating Nodes, Inlets, Outlets
- Spreads, Data and Herr Inspektor
-Hello World Tutorial—now with movement and color.

Jan. 27 **Tuesday**
-Review: Spreads, Data and Herr Inspektor
-Types of Spreads: Linear, Circular, Random, Gaussian
-Automation: Lfo, Oscillators, Damper, Decay

Jan. 29 **Thursday**
-Review
-Textures and Layers
-Transforms, Rotate, Scale, Translate
In class exercise: Make Something!

Feb. 3 **Tuesday**
-Review: Quad, Sprite, Pillow, Segment, etc.
-In class exercise: Make Something! Cont....

Feb. 5 **Thursday**
-Textures: Movies and Images
-Writing to a movie file

Feb. 10 **Tuesday**
-Render States
-Segment Tutorial

Feb. 12 **Thursday**
-3D Primitives: Sphere, Torus, Box, Cylinder
-Flat and Phong
-3D Transformations

Feb. 17 **Tuesday**
-Review of Basic 3D
-Solar System tutorial

Feb. 19 **Thursday**
-Moving around in 3 Dimensions

Feb. 24 **Tuesday**
-In class assignment: Use 3 Dimensional primitives, some combination of different textures and scaling to create some kind of scene, animation, or object.

Feb. 26 **Thursday**
-Open Experimentation

March 2 **Tuesday**
-Controlling parameters with real world input: sound and video
Mid Term Project Due: March 12

March 4 **Thursday**
-Review of controlling parameters with real world input
-Triggering events

March 9 **Tuesday**
-Vectors
-Vertex Buffers
March 11 Thursday
-Review of Vectors and Vertex Buffers

March 12 Thursday
-Mid Term Project Due: Viewing and Critique

March 16 and 18: Spring Break, No Class

March 24 Tuesday
-Fun with Feedback
-Different methods of analysis

March 28 Thursday
-Bsplines
-Subpatches
-Mesh Editor/Grid Editor

March 31 Tuesday
-Review of Bsplines, Subpatches, and Editors
-3D Mapping

April 2 Thursday
-3D Mapping Continued
Assigned: Final Projects Due May 5th and May 7th
Assignment: Project Proposals. Due April 7

April 7 Tuesday
-Project Proposals Due
-Critique and Evaluation of Proposals
-Assignment: Revise Project Proposals. Due April 9

April 9 Thursday
-Reviewed Project Proposals Due.
-Critique and Evaluation

*The remainder of our class meetings should be considered studio time to work on your final projects with regards to research and practice. Use this time wisely.

May 5 Tuesday
-Group 1 Final Projects Due

May 7 Thursday
-Group 2 Final Projects Due