

FLORIDA ATLANTIC UNIVERSITY

Graduate Programs—NEW COURSE PROPOSAL

UGPC APPROVAL _____
 UFS APPROVAL _____
 SCNS SUBMITTAL _____
 CONFIRMED _____
 BANNER POSTED _____
 CATALOG _____

DEPARTMENT:
 SCHOOL OF COMMUNICATION & MULTIMEDIA STUDIES

COLLEGE:
 DOROTHY F. SCHMIDT COLLEGE OF ARTS & LETTERS

RECOMMENDED COURSE IDENTIFICATION:

PREFIX _____ DIG _____ COURSE NUMBER 6547 LAB CODE (L or C) _____

(TO OBTAIN A COURSE NUMBER, CONTACT [K.JENNINGS@FAL.EDU](mailto:k.jennings@fal.edu))

COMPLETE COURSE TITLE:

3D PRODUCTION FOR INTERACTIVITY

EFFECTIVE DATE

(This term course will be offered)

FALL 2015

CREDITS:

4

TEXTBOOK INFORMATION:

NONE REQUIRED.

GRADING (SELECT ONLY ONE GRADING OPTION): REGULAR X SATISFACTORY/UNSATISFACTORY _____

COURSE DESCRIPTION, NO MORE THAN THREE LINES:

This course provides a broad overview of the 3D modeling, texturing, rigging, and animation pipeline for use in most interactive 3D environments. Specifically, students will adapt these 3D production techniques to the creation of game assets to be implemented in a visual demo of their game concept, assets, animation tests, and other artwork created for interactive applications.

PREREQUISITES*:

ADMISSION TO SCMS MTEN MFA PROGRAM

COREQUISITES*:

REGISTRATION CONTROLS (MAJOR, COLLEGE, LEVEL)*:

MEDIA, TECHNOLOGY & ENTERTAINMENT MFA, SCMS
 DOROTHY F. SCHMIDT COLLEGE OF ARTS & LETTERS
 GRADUATE (MASTER OF FINE ARTS)

* PREREQUISITES, COREQUISITES AND REGISTRATION CONTROLS WILL BE ENFORCED FOR ALL COURSE SECTIONS.

MINIMUM QUALIFICATIONS NEEDED TO TEACH THIS COURSE:

INSTRUCTOR MUST HOLD AN MFA OR PH.D. AND HAVE AN UNDERSTANDING OF DIGITAL PRODUCTION TECHNIQUES FOR INTERACTIVE MEDIA.

Faculty contact, email and complete phone number:

Brad Lewter, MFA
blewter@gmail.com
 954-236-1369

Please consult and list departments that might be affected by the new course and attach comments.
 NA

Approved by:

Department Chair: [Signature]

College Curriculum Chair: [Signature]

College Dean: [Signature]

UGPC Chair: _____

Graduate College Dean: _____

UFS President: _____

Provost: _____

Date:

4/1/15

4/1/2015

4/6/15

1. Syllabus must be attached; see guidelines for requirements: www.fau.edu/provost/files/curriculum_syllabus_2011.pdf

2. Review Provost Memorandum: Definition of a Credit Hour www.fau.edu/provost/files/Definition_Credit_Hour_Akene_2012.pdf

3. Consent from affected departments (attach if necessary)

Email this form and syllabus to UGPC@fau.edu one week before the University Graduate Programs Committee meeting so that materials may be viewed on the UGPC website prior to the meeting.

DIG-6547
3D Production for Interactivity
[Semester], [Year]; [Day(s)]; [Time]
[Room]

Brad Lewter
blewter@fau.edu

Office hours by appointment (Davie: LA412)
[Office hours]

Course Description for DIG 6547 3D Production for Interactivity:

This course provides an “art director” level overview of the 3D modeling, texturing, rigging, and animation process for use in interactivity. Specifically, students will adapt these 3D production techniques to the creation of games assets to be implemented in the Unity game engine. Through weekly engagement in weekly demonstrations and assigned readings, students will gain a thorough understanding of both the technical and theoretical issues in creating real time, interactive environments.

Course Outcomes:

Students will create a number of assets and enhancements throughout the first half of the class. The techniques learned in the creation of these assets will then be applied to the creation of an interactive environment. Students will be encouraged to thoroughly address the narrative and conceptual underpinnings of said interactive environment to create a work that is engaging and thought provoking.

Objectives:

This course aims to give students a broad overview of 3D production techniques for use in real time applications. Ultimately, the students should finish the course with an understanding of asset creation, aesthetics, interactivity, and conceptual development for real time applications. Student work should demonstrate an understanding of the course content and ultimately provide the student with examples of work for a digital art portfolio.

Required Books:

Sketchbook
By You!

Recommended Books:

The New Media Reader
Editor: N. Wardrip-Fruin; N. Montfort
ISBN: 0262232278

Media and Cultural Studies: Key Works
Editors: M. G. Durham; D. M. Kellner
ISBN: 1405132582

Course Length: 16 Weeks

Credit Hours: 4

Prerequisites: Admission to MTE or MFA

Instructional Methods:

The material for this course will be taught through a series of lectures and hands on exercises. There may also be an occasional fieldtrip.

**Explanation of
Assignments:**

Over the course of this semester, you will execute number of small assignments in various software packages, propose the creation of an interactive environment, and execute the creation of that environment in the form of a playable demo. The goal of the first half of the course is to provide you with a rapid overview of a real time production pipeline for the creation of interactive assets. As such, each assignment in the first half of the semester will represent a facet of the game production process and thus serve as an "art director" level overview of that subject. There isn't enough time to go into depth on every topic, so it will be up to you to pursue topics of interest throughout the course and develop those associated skill sets.

These assets and character models will then be combined in a game engine to create an interactive visual demo. This demo should afford the player a degree of control in navigating your environment. Your environment should be lit and textured. Game-like elements of points and objectives are permitted, but not required. In addition to the visual demo, you will create a PDF portfolio compiling process and production work for this project.

In addition to your visual assignments, pertinent readings will be assigned and responses collected for credit.

Sketchbook:

You are required to maintain a sketchbook in any format with which you feel comfortable (from 3" x 5" Moleskine to 11" x 17" sketchbook). However, you will be required to have sufficient space in said notebook each class for critique notes and/or conceptual sketches. If you run out of room you are required to bring an additional sketchbook. These notebooks may be collected at my discretion and will be evaluated based on individual diligence in planning of work and documentation of critique.

Grading for this class will break down as follows:

Sketchbook	10%
Participation	10%
Game Assets	20%
Character/Rig	20%
Readings/Responses	10%
Portfolio/Demo	30%

Grading Legend:

93-100 %	A
90-92.9 %	A -
88-89.9 %	B +
83-87.9 %	B
80-82.9 %	B -
78-79.9 %	C +
73-77.9 %	C
70-72.9 %	C -
68-69.9 %	D +
63-67.9 %	D
60-62.9 %	D -
0 - 59.9 %	F

A grading rubric that defines the evaluation of each assignment will be given on that assignment's handout.

Attendance:

Students should be present for every class of the semester, arriving before class begins and staying until class is dismissed. Students are encouraged to attend every class as

participation in critiques or discussion of readings will be assessed in the participation portion of the final grade and could be adversely affected by absenteeism.

Students are allowed 2 unexcused absences. Each additional absence will result in a 10 point reduction to the student's final grade. Absences can be excused with sufficient documentation.

In the case of absence, students are responsible for finding out what work they have missed, or in obtaining notes from a classmate. Extensions on work due are not granted for being absent for the class that they were assigned in or due in. If an absence is unavoidable it is strongly recommended to contact the instructor before the absence and make any arrangements to turn in work early.

Reasonable accommodations can be arranged AHEAD OF TIME through email or meeting for religious, University, research, or limited professional obligations.

Tardiness:

Being late to class or when returning from break will be recorded as a tardy, and can affect a student's grade as it impacts participation. Tardy policy states that any student who is more than ten minutes late will be considered absent for that class. A late student is expected to join the class with a minimum of disruption to the lesson. A student who is late three times will receive an automatic 10 point deduction from their participation grade with additional 5 point deductions for each additional instance of tardiness.

Late Work:

You must turn in your work on the indicated date. A 10 point grade deduction for each day late will be computed in that assignment's final grade. Your work is "on-time" if it is provided when asked for on the day of critique. If you are asked to so, you will be expected to have your work available on a server, portable media, or instructor computer at the beginning of class. Failure to have your work available immediately on the day of critique will result in a grade deduction of up to 10 points. Being absent on the day the project is due does not grant you a free pass. If you are not there it is your responsibility to get your project to me. If you do not turn in your project on the day its due I will not ask you about your project. It is your responsibility to turn it into me.

Statement on Academic Dishonesty:

Plagiarism is the act of taking words, ideas, or artwork and presenting them as your own without due credit. Plagiarism can include the assistance or complicity in another's plagiarism. Plagiarism is extreme academic misconduct, which defeats your objectives in attending this institution. Plagiarism will not be tolerated. Cheating students will fail the class and discovery may lead to immediate expulsion from the college.

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001.

An additional note: with the plethora of assets available online it can be tempting to use some freely available resources to complete your assignments. This is acceptable as long as such assets are identified as borrowed and credit is clearly given to the contributing artist. Failure to indicate "borrowed" assets will be considered academic dishonesty and treated as such.

Saving Work:

It is strongly suggested that you back up your work in triple redundancy (3x). It is solely your responsibility to save your work. If you lose your work, I will sympathize with your loss but I will be forced to mark you for zero credit on any assignment you fail to submit.

Changes to the Syllabus:

Changes to course content are at the discretion of the professor. It is the student's responsibility to stay informed of these changes, every attempt will be made by the professor to inform the class of changes in a timely manner.

Disability Policy:

In compliance with the Americans with Disabilities Act (ADA), students who require reasonable accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) -- in Boca Raton, SU 133 (561-297-3880); in Davie, LA 240 (954-236-1222); in Jupiter, SR 110 (561-799-8010); or at the Treasure Coast, CO 117 (772-873-3441) – and follow all OSD procedures.

Week 1: Intro, Syllabus, Course Overview, CG101

Week 2: Modeling workflows, NURBs/Poly/SubDiv, Marking Menus, Custom Shelves

Week 3: Topology for Games,UVing/Unwrapping, Texturing 3D vs 2D

Week 4: High Poly Modeling, Shader Networks, Normal Maps, Multilayer Textures, LOD

Week 5: Game Asset Critique; Game Engines Intro, Your First Game, Asset Management

Week 6: Character/Vehicle/Prop Setup for Games, Skinning/Binding, Painting Weights

Week 7: Scene/Level Design, Lighting, Texture Tiling

Week 8: Game Proposal Presentations

Week 9: Animation for Games, Asset Migration, 1st & 3rd Person Player Controllers

Week 10: Interactivity, Triggers, Checkpoints, Scores

Week 11: Level Building, NPCs, GUI design & implementation

Week 12: Game Progress Demo

Week 13: Advanced Topics: Motion Capture

Week 14: Advanced Topics: Optimization

Week 15: Advanced Topics: Platforms

Week 16: Final Game Demo and Presentation