GAME DESIGN PRACTICES

INSTRUCTOR: Nick Heitzman	**CLASS LOCATION***:* PICT 205
SEMESTER/YEAR: FALL 2018	**CLASS MEETING TIME(S)***:* T, P 5 – 6; TR, P 6
Office location/Hours: NRG 116 T 3 – 4 PM	**Contact phone:** (352) 294-2000
Credit Hours: 3.0	**COURSE NUMBER:** DIG3713
CONTACT EMAIL: Contact via Canvas Inbox	**COURSE COMMUNICATION:** UF E-LEARNING

COURSE DESCRIPTION
Game Design Practices is engineered to equip the students with the basic technical knowledge and skills in the field of digital illustration, conceptualization, and visualization for game production. Students will learn to work within multiple disciplines within the game art field in order to develop a general understanding of the various pipelines and processes involved. Through a carefully crafted set of assignments, the course simulates the working conditions in video game art production.

PREREQUISITE KNOWLEDGE AND SKILLS
BA in DAS or Written Consent of Instructor

PURPOSE OF COURSE
The purpose of this course is to introduce the students to the industry practices in game art production.

COURSE GOALS AND/OR OBJECTIVES: By the end of the course, students will be able to:
1. Render game concept art per direction.
2. Render basic environment art based on concept source.
3. Create, maintain, and update a game-industry standard Art Style Guide.
4. Effectively implement core principles of the game art production process: brief analysis, silhouettes, concept art, and final art.
5. Critically analyze the construction of digital and non-digital games from the game artist perspective.

COURSE SCHEDULE:

The FINAL EXAM TIME SCHEDULED FOR THIS COURSE will be announced in advance of each semester by the University of Florida Registrar's Office at http://www.registrar.ufl.edu/soc/

FINAL PROJECT IN LIEU OF THE FINAL EXAM AND DUE ON THE SCHEDULED FINAL EXAM DATE/TIME

Week	Topic	Assignments
1	Course introduction; Game background architecture (multi-layer, non-interactive); Art Style Guide (ASG) overarching visualization paragraph; design of the following environment assets: • Sky or far plane	**Assignment 1** Short ASG visualization elaboration; designing three thematically distinct sets of scene

	• Clouds and atmospheric effects • Natural distant landscape elements • Urban distant landscape elements Practical work/Project Review	background elements, with a unified visual style.
2	Game midground (multi-layer, non-interactive); design of the following environment assets: • Natural landscape elements (rocks, trees, coral, cliffs) • Urban landscape elements (buildings, rooftops, concrete and metal constructs) Practical work/Project Review	**Assignment 2** Designing mid-ground elements to complement each of the three previously designed background elements.
3	Game foreground (multi-layer, non-interactive); design of near plane environment assets: • Natural elements (vegetation, rocks, ground mass, mass of water) • Urban elements and decor (pillars, railings, machinery) • Use of faux depth of field effects to achieve focus • ASG integration of all environment layered elements created thus far Practical work/Project Review	**Assignment 3** Designing foreground elements to complement each of the six previously designed scene elements. Update ASG game environment section.
4	Platformer game tiles and building elements: • Benefits and logic of modular artwork • Designing modular elements that can be tiled in order to create scenery • Designing background, gameplay, transition, and water tiles • Collision generation for modular assets • Various tile techniques and types for greater modularity Practical work/Project Review	**Assignment 4** Designing three sets of tiling elements for each of the previously designed scene elements. Update ASG modular pipeline section.
5	Player character • Concept pipeline for player character (PC) • Elaboration and final design of player character • Refining PC design to compliment game environment and visual style Practical work/Project Review	**Assignment 5** Silhouettes, rough, and refined design of Player character; update ASG PC concepts.
6	Non player characters • Concept proposal for non-player character (NPC) • Elaboration and final design of non-player character	**Assignment 6** Concept design of NPC in a unified visual style to complement the design

	• Evolution of NPC design to reflect NPC power level and danger level using similar base NPC visuals Practical work/Project Review	of the PC; design, three NPC refined concepts reflecting gameplay evolution. Update ASG with NPC character concepts.
7	Props, in game collectable items, vehicles; design of the following elements: • Collectable items (health, ammo, upgrades) • Vehicles and static large-scale interactive art • Props (weapons, communication devices, protective gear, tools) Practical work/Project Review	**Assignment 7** Designing a set of collectable items, vehicle and props according to the game world logic and specific needs of the project. Update ASG interactive asset section with final game art.
8	Characters - layer separation for animation • Understanding the principles of 2D animation using separate layers • Analysis of animation possibilities for PC • Separation of a character into layers to be used for in-game character animation Practical work/Project Review	**Assignment 8** Separation of various animation layers to be used for in game animation of PC. Preparation of PC illustration for in game animation.
9	Player character animation sprite sheet • Understanding of sprite sheet format and its application in game animation • Basic principles of creating an animation sprite sheet for the player character Practical work/Project Review	**Assignment 9** Creating three sprite sheets for three chosen in-game player character actions (idle, walk, and interact). Update PC ASG section.
10	Player character visual evolution progression • Designing visual variations of the player character to illustrate various states of the character (three levels of evolution explored) • Designing clear visual feedback of gameplay and visual design rules Practical work/Project Review	**Assignment 10** Designing three different player character design states in line with the existing player character design, in line with specific project needs. Update ASG PC section.
11	User Interface (UI); design of the following UI elements: • Buttons and states	**Assignment 11**

	• Heads-up display (HUD) • UI/UX theory • GUI design techniques and rulesets Practical work/Project Review	Designing UI elements (to compliment specific game visual style) in line with the overall visual and narrative style of the game. Update ASG UI section.
12	Particle materials; understanding 2D particle effects, and creating graphics for specific particle systems: • Natural (rain, smoke, fire, snow, dust) particle elements • Magical (spells, power) particle elements Practical work/Project Review	**Assignment 12** Concept and creation of graphics to be used as materials for 2D particle effects, in line with the overall visual style of the game, according to the needs of the project. Update ASG FX section.
13	Menu screens; concept elaboration and design of various support screens: • Team splash screen • Game start screen • Options screen • Tutorial screen • Credits screen Practical work/Project Review	**Assignment 13** Designing team splash, game start, and tutorial screen according to the needs of the project, in line with the overall visual style of the game. Update ASG sections.
14	Icons; the purpose, variations and design of application icons. Localization benefits of iconography Practical work/Project Review	**Assignment 14** Designing 10 various graphics to be used as application icons for the game project. Update ASG sections.
15	Art Style Guide: collection of artwork, together with usage details, guidelines, and specifics of all game artwork: • Elaboration and purpose of video game project visual style guide • Art Style Guide as a form of project portfolio and presentation tool Practical work/Project Review	**Final Project** Designing a PDF file to display all of the previously finished specific assignments, their development stages as well as visual design overview.
16	Project Post Mortem	

DIG3713 – GAME DESIGN PRACTICES

REQUIRED TEXTBOOKS, HARDWARE AND SOFTWARE:

1. Unity 5 2017.4 or higher DOWNLOAD
2. Adobe Photoshop CC
3. Digital Graphic Drawing Tablet with Pen (Photoshop compatible)

RECOMMENDED MATERIALS:

1. Eliott J. Lilly (2017) **Big Bad World of Concept Art for Video Games: An Insider's Guide for Students** ISBN-10: 1624650201 ISBN-13: 978-1624650208
2. 3D Total Publishing (2013) **Art Fundamentals,** ISBN: 978-0-9094140-0-6
3. 3D Total Publishing (2012) **Beginner's Guide to Digital Painting in Photoshop,** ISBN: 978-0-9551530-7-5
4. 3D Total Publishing (2013) **Sketching from the Imagination**. ISBN: 978-0-9094140-2-0
5. Official Unity Community https://unity3d.com/community

COURSE FEES:

Course fees are assessed for certain courses to offset the cost of materials or supply items consumed in the course of instruction. A list of approved courses and fees is published in the Schedule of Courses each semester. (UF-3.0374 Regulations of the University of Florida).

Material and supply and equipment use fee information is available from the academic departments or from the schedule of courses (Florida Statutes 1009.24). The total course fee for this class $0.00

The total course fee for each course is listed on the UF Schedule of Courses. (https://registrar.ufl.edu/soc/).

EVALUATION OF GRADES

Assignment	Total Points	Percentage of Grade
Participation – Synchronous students are expected to participate in class discussions. Asynchronous students are welcome to actively participate in class discussions. Both synchronous and asynchronous students are expected to participate in online forums outside class meetings.	100	10%
Assignments – Assignments are due the first session of each week unless otherwise noted. The work will be uploaded to CANVAS prior to the beginning of class otherwise the work will be considered late.	1400	60%

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Final Project – Art Style Guide (ASG) PDF presenting all of the previously finished specific assignments, their development stages as well as visual design overview..	100	30%

GRADING SCALE:

Letter Grade	% Equivalency	GPA Equivalency
A	94 – 100%	4.0
A-	90 – 93%	3.67
B+	87 – 89%	3.33
B	84 – 86%	3.00
B-	80 – 83%	2.67
C+	77 – 79%	2.33
C	74 – 76%	2.00
C-	70 – 73%	1.67
D+	67 – 69%	1.33
D	64 – 66%	1.00
D-	60 – 63%	.67
E, I, NG, S-U, WF	0 – 59%	0.00

More information on grades and grading policies is here:
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

COURSE POLICIES:

PARTICIPATION / ATTENDANCE POLICY
We value participation more than mere attendance. Each Instructor is responsible for communicating the specific details of what percentage of your grade (if any) will be assigned to participation, and how class participation will be measured and graded.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

In our course, attendance for synchronous students is mandatory. Students are allowed **three unexcused absences**. If you miss more than **three classes** during the semester, each additional absence will lower your overall grade by **100 points**. If you miss more than **six classes**, you will fail the course. Exempt from this policy are only those absences involving university-sponsored events, such as athletics and band, and religious holidays, family emergencies, and health issues for which **you must provide appropriate documentation in advance of the absence**.

Additionally, tardiness will not be tolerated. If you are tardy for three class periods, you will receive an unexcused absence.

MAKE-UP POLICY
All projects must be submitted on time. Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence as outlined under UF attendance policy:
https://catalog.ufl.edu/ugrad/1617/regulations/info/attendance.aspx

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

COURSE TECHNOLOGY
The University of Florida and Digital Worlds requires that students have access to and on-going use of a laptop/mobile computer for DIG courses in order to be able to function in the current learning environment. Students are required to access electronic forms of information, submit assignments and communicate with other students and faculty electronically. DW requires each student's mobile computer to meet certain minimum specs for heavy graphics use, the requirements documented below must be met.

DW Computer Requirements
http://digitalworlds.ufl.edu/programs/ba-in-digital-arts-sciences/new-student-buyers-guide/

COURSE COMMUNICATIONS
Students can communicate directly with the Instructor regarding the course material through the course management system (CANVAS).

Electronic communication outside class meetings is welcome, however unless absolutely urgent, will be responded to M-F from 9 AM to 5 PM.

When you send an email to your instructor, you should:

- Use the Canvas "Inbox" tool for your course unless you have specific directions otherwise
- Send to the minimum number of necessary recipients
- Use a descriptive subject line
- Be concise and clear
- Use standard file formats for attachments (e.g. PDF, DOCX, XLSX), or confirm that the recipient can open the format you intend to send
- Sign your message with your name and return email address

NOTE ON INSTRUCTION

DIG3713 – GAME DESIGN PRACTICES

The course incorporates lecture, in-class exercises, and assignments to apply and reinforce skills learned. Additionally, students will be asked to participate in homework expanding on in-class lessons to strengthen their skills. Individual assignments will be explained in detail as the course progresses.

COURSE TECHNOLOGY SUPPORT:

The Technology Support Center provides computer support for Digital Worlds students who access Visimeet, lecture recordings, student equipment, facilities and other technology-based resources. http://digitalworlds.ufl.edu/support

For computer assistance related to Visimeet, lecture recordings, student equipment, and facilities request please Submit a Help Ticket or email support@digitalworlds.ufl.edu.

For support related to account services, technical consulting, mobile device services, software services, administrative support, application support center, and learning support services, please contact the UF Computer Help Desk available 24 hours a day, 7 days a week at 352-392-4357 or helpdesk@ufl.edu.

UF POLICIES:

UNIVERSITY HONESTY POLICY
UF students are bound by The Honor Pledge that states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

CLASS DEMEANOR
Students are expected to arrive to class on time and behave in a manner that is respectful to the instructor and to fellow students. Please avoid the use of cell phones and restrict eating to outside of the classroom. Opinions held by other students should be respected in discussion, and conversations that do not contribute to the discussion should be held at minimum, if at all.

STUDENTS REQUIRING ACCOMMODATIONS
Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

NETIQUETTE COMMUNICATION COURTESY
All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats, more information can be found at: http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf

ONLINE COURSE EVALUATIONS
Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at evaluation results.

CAMPUS RESOURCES

HEALTH AND WELLNESS
>**U Matter, We Care**
>If you or a friend is in distress, please contact umatter@ufl.edu or 352 392- 1575 so that a team member can reach out to the student.
>
>Counseling and Wellness Center http://www.counseling.ufl.edu/cwc/Default.aspx, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.
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>Sexual Assault Recovery Services (SARS)
>Student Health Care Center, 392-1161.
>
>University Police Department, 392-1111 (or 9-1-1 for emergencies). http://www.police.ufl.edu/

ACADEMIC RESOURCES
>E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml.
>
>Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. http://www.crc.ufl.edu/
>
>Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.
>
>Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. http://teachingcenter.ufl.edu/
>
>Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. http://writing.ufl.edu/writing-studio/
>
>Student Complaints Campus:
>https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf

On-Line Students Complaints:
http://www.distance.ufl.edu/student-complaint-process

Disclaimer: This syllabus represents the instructor's current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.