DIG2632 Creating Mobile Games

Instructor
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Email
Canvas Mail

Office Location
NRG 102

Office Hours
W 1 – 2 PM

Course Number
DIG2632

Semester/Year
Summer 2020

Course Credits
3 credits

Course Location
ORC 0120

Course Meeting Times
M T W R F | Period 2
Online

Course Description
Introduces designing mobile video games with simple drag and drop programming and basic asset creation. Covers the essential principles of design and development needed to create effective arcade-style games. Provides a solid foundation in the technical skills needed to create multi-platform mobile games.

Pre-Requisite Knowledge and Skills
None

Objectives: By the end of this course, students will be able to:
- Understand the general work-flow for creating mobile games using industry standard software.
- Define scope for their game by creating a Game Design Document.
- Understand the various types of tools involved in designing a mobile game.

Required Materials
- Unity HUB and Unity 2019+ *(Free registration required)*
- Visual Studio *(or similar scripting software)*
- Adobe Photoshop CC

Recommended Materials
- Lynda.com Online Unity Tutorials *(Free access for UF students)*
- Official Unity Development Community https://unity3d.com/community
- ArtStation https://www.artstation.com/
- SketchFab https://sketchfab.com/
- Night in the Woods game http://www.nightinthewoods.com/
- Digital Graphic Drawing Tablet with Pen *(Photoshop compatible)*

Course Schedule

This course incorporates lecture, discussion, quizzes, and group learning projects. Individual assignments will be explained in detail as the course progresses. 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/

Week	Subject	Assignments Due
Week 1	**Introduction to Game Development** Syllabus Overview Unity and Photoshop Install Check and Best Settings Development Pipelines 2D Games Introduction Game Design Document (GDD) GDD Assignment Overview and Exercise	None
Week 2	**GDD and Rough Level Development** Rough Level Map Creation Unity Editor Exercises Movement, Physics, and Collision Player and Main Camera Damage, Death, and Respawn Level Gameplay Assignment Exercise	GDD V1.0 Rough Level Map Prototype Level Image
Week 3	**MIDTERM Game Build** Building the Game Executable Animations Enemies and Hazards Gameplay Scripts Review	**MIDTERM GAME BUILD** Animated Sprite Sheet
Week 4	**User Interface (UI) and Particle FX** Canvas UI; Health, Score, Buttons, Feedback Collectables Dialogue System and UI Components Particle Editor Overview and Exercises Particle FX Best Practices	UI + Particles Screenshot
Week 5	**Icing On The Cake** Lighting and Shadows 3D Materials in 2D Games 3D Models in 2D Games Parallax Scrolling Post-Processing	Lighting Screenshots
Week 15	**FINAL Gold Master Game Build** Gameplay Testing and Bugs Tutorials and Player Conveyance Basics Bug Evaluating and Tracking Final Game Build Process Game Icon Design and Implementation Post-mortems in Game Development	**FINAL GAME BUILD**

Evaluation of Grades

Assignments	Total Points	% of Grade
PARTICIPATION	100	10
GAME DESIGN DOCUMENT	50	10
ROUGH LEVEL MAP	50	10
PROTOTYPE LEVEL IMAGE	50	10
MIDTERM MILESTONE	100	20
ANIMATED SPRITE SHEET	50	10
UI + PARTICLE FX SCREENSHOT	50	5
LIGHTING SCREENSHOT	50	5
FINAL PROJECT (GOLD MASTER)	100	20

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		0.00

More information on grades and grading policies is here:
https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/

Materials and Supply Fees
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 is $0.00.

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

Course Polices

Attendance Policy, Class Expectations, and Make-Up Policy

We value participation more than mere attendance. The 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. Interaction with your peers and the instructor will empower you to greater achievement.

In our course, attendance is taken at the beginning of each class period, and is calculated as the Participation element which makes up 10% of your overall grade. Any unexcused absences are factored into the Participation grade total. 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. All assignments are due by the stated date and time. Late assignments as a result of an unexcused absence may be submitted up to one week after the scheduled due date, incurring a 10% grade penalty.

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

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/UGRD/academic-regulations/attendance-policies/

Course Technology
The students will be required to have access to and use a personal computer with the access to the Internet. Word editing software will be required for written assignments.

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. Digital Worlds requires each student's laptop 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) using "Canvas Mail".

Course Technology Support

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

For computer assistance related to Zoon, 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 Computing 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 which 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 (https://www.dso.ufl.edu/sccr/process/student-conduct-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, https://www.dso.ufl.edu/drc) 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

Software Use
All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy
There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see:
http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html

Course Evaluation
Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu/evals. 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 https://evaluations.ufl.edu/results/.

Campus Resources

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, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)
Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or http://www.police.ufl.edu/.

E-learning Technical Support
352-392-4357 (select option 2) or e-mail to Learning- learning-support@ufl.edu

Career Connections Center
Reitz Union, 392-1601. Career assistance and counseling. https://career.ufl.edu

Library Support
Various ways to receive assistance with respect to using the libraries or finding resources.
http://cms.uflib.ufl.edu/ask

Teaching Center
Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. http://teachingcenter.ufl.edu/

Writing Studio
2215 Turlington Hall, 846-1138. Help brainstorming, formatting, and writing papers.
http://writing.ufl.edu/writing-studio/

Student Complaints Campus
http://regulations.ufl.edu/wp-content/uploads/2012/09/1.0063.pdf

Online 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.