

# DIG3878 Game System Dev 2

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**Instructor**

Markus Santoso

**Phone**

(352) 294-2000

**Email**

Canvas Mail

**Office Location**

CSE439

**Office Hours**

Tuesday 9 – 11 AM

**Course Number**

DIG3878

**Semester/Year**

Spring 2021

**Course Credits**

3 credits

**Course Location**

NRG 205 (PICT)

**Course Meeting Times**

MON Period 8-9

WED Periods 9

**Course Description**

This course will cover the fundamental principles of Game Engine's programming such as basic collision detection, input detection, instantiate, destroy game object and others. The student will also learn how to use game engine to develop various applications such as Personal Computer (PC) and mobile game, Augmented/Virtual Reality (AR/VR) project and others.

**Pre-Requisite Knowledge and Skills**

BA in Digital Arts and Sciences major, DIG 3873 with minimum grade of C.

**Objectives: By the end of this course, students will be able to:**

- Practice working with a game engine interface and features
- Apply the basics of game engine scripting to a game development project
- Develop mini game on PC and mobile platform
- Create an AR and VR project using game engine

**Required Materials**

- N/A

**Recommended Materials**

- <https://learn.unity.com>

# Course Schedule

This schedule is only a guide and is subject to change. Unless otherwise indicated, assignments and readings are due the day they are listed on the syllabus, not the following day.

Week	Subject	Assignment/Quizzes
Week 1	Class Introduction, Game Engine Installation Interface, RigidBodyes, Collision Detection, Prefabs	<b>Assignment 1</b> (Online Submission)
Week 2	Input, Destroy-vs-SetActive, Instantiate	<b>Assignment 2</b> (Online Submission)
Week 3	Translate and Force Movement, Simple Timer, Materials	<b>Assignment 3</b> (Online Submission)
Week 4	Audio, Trigger Collision, Button. <b>Challenge 1</b>	<b>Assignment 4</b> (Online Submission)
Week 5	Adding Components, Following Object, Score, Name-vs-Tag	<b>Assignment 5</b> (Online Submission)
Week 6	WaitForSeconds, Finding Distance, Switching Scenes, User Interface (Button, Image, etc) <b>Challenge 2</b>	<b>Assignment 6</b> (Online Submission)
Week 7	Workshop: Mini Game Development	<b>Assignment 7</b> (Online Submission)
Week 8	Workshop: FPS Game Development <b>MidTerm</b>	<b>Assignment 8</b> (Online Submission)
Week 9	Final Project Explanation	<b>Assignment 9</b> (Online Submission): Meeting Report + Game Design Document
Week 10	Group Presentation PostProcessing	<b>Assignment 10</b> (Online Submission): Meeting Report
Week 11	Group Presentation Mobile Dev: iOS	<b>Assignment 11</b> (Online Submission): Meeting Report <b>Check Point 1</b> -ALPHA Version
Week 12	Group Presentation Mobile Dev: Android	<b>Assignment 12</b> (Online Submission): Meeting Report
Week 13	Group Presentation Unity & Augmented Reality	<b>Assignment 13</b> (Online Submission): Meeting Report <b>Check Point 2</b> -BETA Version
Week 14	Group Presentation Unity & Virtual Reality	<b>Assignment 14</b> (Online Submission): Meeting Report
Week 15	Open House & Recap	<b>Assignment 15</b> (Online Submission): Meeting Report+ GAMMA Version

## Evaluation of Grades

Assignment	Total Points	% of Grade
<b>Class Participation and Attendance</b> – Students are expected to actively participate in class discussions, both in class as well as in course online forums and outside class Group meetings.	5	5%
<b>Weekly Graded Quiz/Assignment</b> (1 pt X 15 weeks) – every week students will have a graded quiz	15	15%
Two <b>Challenges</b> – There will be 2 Challenges to examine student’s proficiency of certain topics	10	10%
<b>Mid Test</b> – Students are expected to individually develop a mini-game for Mid Test	25	25%
Two <b>Check Points</b> – students will form a group for the Final Project, there are two check points where each group representative need to present their group’s progress	10	10%
<b>Final Project</b> – Each group will develop a game to show their abilities to satisfy requirements given by instructor	35	35%
<b>Total Points</b>	100	100

## 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/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 Policies

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## 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 for On-Campus and RT On-Line 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.

YOT On-Line students will be expected to stay in sync with the rest of the class, and to achieve their participation portion by recording their responses to course material in advance of each lecture at least once a week.

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".

## Face-to-Face Instruction

We will have face-to-face instructional sessions to accomplish the student learning objectives of this course. In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions.

- You are required to wear approved face coverings at all times during class and within buildings. Following and enforcing these policies and requirements are all of our responsibility. Failure to do so will lead to a report to the Office of Student Conduct and Conflict Resolution.
- This course has been assigned a physical classroom with enough capacity to maintain physical distancing (6 feet between individuals) requirements. Please utilize designated seats and maintain appropriate spacing between students. Please do not move desks or stations.
- Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
- Follow your instructor's guidance on how to enter and exit the classroom. Practice physical distancing to the extent possible when entering and exiting the classroom.
- If you are experiencing COVID-19 symptoms ([Click here for guidance from the CDC on symptoms of coronavirus](#)), please use the UF Health screening system and follow the instructions on whether you are able to attend class. [Click here for UF Health guidance on what to do if you have been exposed to or are experiencing Covid-19 symptoms](#).
- Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. [Find more information in the university attendance policies](#).

## Course Recordings

Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

## Course Technology Support

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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](mailto: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](mailto:helpdesk@ufl.edu).

# UF Policies

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## 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 professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback

in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

## Campus Resources

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### U Matter, We Care:

If you or a friend is in distress, please contact [umatter@ufl.edu](mailto: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](mailto: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.*