APPLIED DIGITAL MEDIA PROTOCOLS

COURSE NUMBER: DIG3878
INSTRUCTOR: MARKUS SANTOSO

SEMESTER/YEAR: SPRING2019
OFFICE LOCATION/HOURS: CSE436, TUE & THU 9-10

CREDIT HOURS: 3.0
CONTACT EMAIL: markus.santoso@ufl.edu

CLASS LOCATION: NRG 0205
CONTACT PHONE: (352) 294-2000

CLASS MEETING TIME(S): M 8-9, W 9
COURSE WEBSITE: elearning.ufl.edu

COURSE DESCRIPTION
This course will cover the fundamental principles of the Unity C# programming language including basic collision detection, input detection, instantiate, destroy game object and others. Students will also learn how to apply these principles to various applications such as personal computers, mobile games, augmented/virtual reality projects, etc.

PREREQUISITE KNOWLEDGE AND SKILLS
- BA in Digital Arts and Sciences major

PURPOSE OF COURSE
The purpose of this course is to introduce students to Unity C# programming language and its various applications to different kinds of media. Students will gain literacy in reading and programming with C# through a design-based approach that will focus on applications of coding.

COURSE GOALS AND/OR OBJECTIVES:
By the end of this course, students will be able to:
1. Understand the basics of Unity’s interface
2. Understand the basics of Unity’s basic feature
3. Understand the Unity C# programming language
4. Develop a mini-game on PC and Mobile platforms
5. Develop an AR and VR project in Unity

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 https://registrar.ufl.edu/soc/

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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</thead>
</table>
| 1    | M: Class Introduction  
     | W: Unity Interface, Rigidbodies, gravity, physics |
| 2    | M: Basic Collision Detection, Input, Prefabs  
     | W: Destroy vs SetActive, Instantiate |
| 3    | M: No Class (Jan 21st)  
     | W: Translate and Force Movement, Simple Timer |
| 4 | M: Materials, Audio, Trigger Collision Detection, Button  
W: Challenge 1 |
|---|---|
| 5 | M: Adding Components, Switching Scenes, Following Object  
W: Finding Distance, WaitForSeconds |
| 6 | M: Challenge 2  
W: FPS Game 1 |
| 7 | M: FPS Game 2 & Midterm Project Explanation  
W: Guest Speaker 1 |
| 8 | M: Final Project Team Draft  
W: Final Project Explanation |
| 9 | M: Group Presentation: Final Project Brief Presentation  
W: Remote Collaboration in Unity |
| 10 | M: Team Progress Presentation  
W: Mobile Dev in Unity |
| 11 | M: CheckPoint 1  
W: AR development in Unity |
| 12 | M: Team Progress Presentation  
W: VR development in Unity |
| 13 | M: Check Point 2  
W: Guest Speaker 2 |
| 14 | M: Team Progress Presentation  
W: Open House Rehearsal |
| 15 | M: Open House (Apr 22\textsuperscript{nd})  
W: Open House Recap (Apr 24\textsuperscript{th}) |

**REQUIRED TEXTBOOKS AND SOFTWARE**

1. Unity3D
2. AR/VR related SDKs: Vuforia, ARKit, Oculus SDK

**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 is $0.0

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

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<tr>
<th>Assignment</th>
<th>Total Points</th>
<th>Percentage of Grade</th>
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<tbody>
<tr>
<td>Attendance &amp; Participation</td>
<td>5</td>
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<tr>
<td>Challenge 1</td>
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<tr>
<td>Mid Term Project</td>
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<tr>
<td>CheckPoint 1</td>
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<td>10%</td>
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<tr>
<td>Final Project</td>
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</tr>
<tr>
<td>Bonus Point</td>
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<td>5%</td>
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GRADING SCALE

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<th>% Equivalency</th>
<th>GPA Equivalency</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>94 – 100%</td>
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<tr>
<td>A-</td>
<td>90 – 93%</td>
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<tr>
<td>B+</td>
<td>87 – 89%</td>
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<tr>
<td>B</td>
<td>84 – 86%</td>
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<tr>
<td>B-</td>
<td>80 – 83%</td>
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<tr>
<td>C+</td>
<td>77 – 79%</td>
<td>2.33</td>
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<tr>
<td>C</td>
<td>74 – 76%</td>
<td>2.00</td>
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<tr>
<td>C-</td>
<td>70 – 73%</td>
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<tr>
<td>D+</td>
<td>67 – 69%</td>
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<tr>
<td>D</td>
<td>64 – 66%</td>
<td>1.00</td>
</tr>
<tr>
<td>D-</td>
<td>60 – 63%</td>
<td>.67</td>
</tr>
<tr>
<td>E, I, NG, S-U, WF</td>
<td>0 – 59%</td>
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</tr>
</tbody>
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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 will class participation be measured and graded.

MAKE-UP POLICY
a. At the sole discretion of the instructor, Exams may or may not be taken late. Documented Emergencies or medical situations may be the only accepted reasons for an excused absence on the
day of an exam.
b. Any assignment turned in past the due date may lose up to 10% of the total point value of the assignment for each class day it is late.

ASSIGNMENT POLICY
a. At the sole discretion of the instructor, late work may be penalized according to the late policy.
b. Any assignment turned in past the due date may lose up to 10% of the total point value of the assignment for each class day it is late.

COURSE COMMUNICATIONS
Students can communicate directly with the Instructor regarding the course material through UF e-Learning. http://elearning.ufl.edu/

COURSE TECHNOLOGY
The students are required to bring their own laptop (Windows, OSX) during classes.

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 (https://www.dso.ufl.edu/sccr/process/student-conducthonor-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, 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

ONLINE COURSE EVALUATIONS
Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at  https://evaluations.ufl.edu. 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

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.

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.


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/
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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.