DIG 2121 Principals of Digital Visualization

Course Description
This is a course that will help prepare students for application to the Bachelors of Arts in Digital Arts & Sciences degree and/or to develop a heightened sense of visual fluency.

Pre-Requisite Knowledge and Skills

Purpose of Course
This course will develop appreciation and basic fluency in the application of visual and design literacy into emergent forms of digital media. Historical and theoretical perspectives inform hands-on learning across topics including Character Sketch and Pre Animation development, pre-visualization, storyboarding and production in static and time-based media, and the critical analysis of contemporary gaming and iconic visual storytelling.

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

• Identify and apply visualization concepts in a variety of design environments
• Demonstrate an understanding of the requirements of Animation, Digital Production and Gaming Environment Graphics
• Analyze, discuss, and demonstrate effective communication of concepts and data via visual presentations

Course Materials:
As assigned
- Optional Reading: Current Materials

Instructor
Michael Clark

Phone
(352) 294-2000

Email
Michael@digitalworlds.ufl.edu

Office Location
REVE SOHO

Office Hours
Tues 12-1 SOHO

Course Number
DIG 2121

Semester/Year
SPRING 2020

Course Credits
3 credits

Course Location
NRG 205
ONLINE

Course Meeting Times
Tue (4) 10:40-11:50
Thu (4-5) 10:40-12:40
## Course Schedule

This schedule is only a guide and is subject to change. Unless otherwise indicated, the course meets twice weekly during the 4th and 5th periods.

<table>
<thead>
<tr>
<th>Week</th>
<th>Subject</th>
<th>Assignment/Quizzes</th>
<th>Assignments Due</th>
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</thead>
<tbody>
<tr>
<td>Week 1</td>
<td><strong>PART ONE – DRAWING + ANIMATION</strong>&lt;br&gt;Intro-Introductions, review of upcoming coursework&lt;br&gt;Define visual terminology:&lt;br&gt;Drawing and Understanding Drawings&lt;br&gt;-Define Lighting, Color, shapes, and angle placement in composition.&lt;br&gt;-Early forms of visualization in history</td>
<td>Assign: Drawing using shapes/cross hatch (Participation points)&lt;br&gt;Compose and Capture</td>
<td>Syllabus Review and Ratification</td>
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<td>Week 2</td>
<td><strong>Visualization of Objects and Data; The Tangible and Intangible</strong>&lt;br&gt;The Science of Color and Color Vision&lt;br&gt;-Color theory.&lt;br&gt;-Composition&lt;br&gt;-Atmospheric perspective.</td>
<td>Photoshop Demo</td>
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<td>Week 3</td>
<td><strong>Perception of Space and Environment</strong>&lt;br&gt;-how color and space tell a story&lt;br&gt;Static and Moving Patterns, Computer Tool Sets</td>
<td>Assign Character Sketch&lt;br&gt;4 poses&lt;br&gt;Discuss Midterm Project</td>
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<td>Week 4</td>
<td><strong>Digital Production and Storytelling</strong>&lt;br&gt;Quiz 1 – Composition Terms&lt;br&gt;-Animatic&lt;br&gt;Compositing; Techniques and Applications, Creating an Animatic</td>
<td>Assign: Draw an object and create the sensation of a moving light source. Use ambient, directional, and spotlight techniques. Fill one page.</td>
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<td>Week 5</td>
<td><strong>PART TWO – DIGITAL PRODUCTION</strong>&lt;br&gt;-Using the Frame; Aspect Ratio, Image Components and the Story&lt;br&gt;- Balance, rule of thirds, etc.&lt;br&gt;- What makes a good composition&lt;br&gt;-Storyboards</td>
<td>Assignment 2 Due&lt;br&gt;Assignment 3 Given&lt;br&gt;Assign: Create a storyboard. 1 page</td>
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<td>Week 6</td>
<td><strong>Photoshop / Premiere integration</strong>&lt;br&gt;-Pre-visualization to final results.&lt;br&gt;-Data organization seen in pipelines&lt;br&gt;Considerations in Time-based Media</td>
<td>Assignment - Object Removal</td>
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<td>Week 7</td>
<td><strong>Finding Images and Manipulation</strong></td>
<td>Assignment - develop comparative motion graphic for data visualization.</td>
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<td>Week 8</td>
<td><strong>AR/VR immersion, 360 Video</strong></td>
<td>MIDTERM Project Due</td>
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<tr>
<td>Week 9</td>
<td><strong>CAD Introduction, Photoshop 3d, Texture maps</strong>&lt;br&gt;Introduction to Final Project</td>
<td>Introduction to Final Project</td>
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<tr>
<td>Week 10</td>
<td><strong>PART THREE - GAMING</strong>&lt;br&gt;Unity Introduction</td>
<td>Assignment – Storytelling in Games</td>
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<td>Week</td>
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<td>Assignments Due</td>
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<tr>
<td>Week 11</td>
<td>Discussion of Gaming Worlds 2D 21/2 D 3D</td>
<td>Assignment - photo stitching</td>
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<td>Week 12</td>
<td></td>
<td>Assignment – Visualizing Game Directions</td>
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<td>Week 13</td>
<td>Working and Production Session Final Projects and Classwork</td>
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<td>Week 14</td>
<td>Individual Student Research Presentations: Analysis of Iconic Time-Based Media</td>
<td>Final Project Due</td>
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<td>Week 15</td>
<td>Final Exam</td>
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**Evaluation of Grades**

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Total Points</th>
<th>% of Grade</th>
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<tbody>
<tr>
<td>Syllabus Ratification, Class Participation and Attendance: Students are expected to actively participate in class exercises, discussions, both in class as well as in course online forums and outside class group meetings.</td>
<td>200</td>
<td>20%</td>
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<tr>
<td>Quizzes: Students will have quizzes hosted through Canvas. The 4 quizzes cover the applications discussed during the course week. Quiz material include lectures, assignments, readings, and other external resources.</td>
<td>300</td>
<td>30%</td>
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<tr>
<td>In Class Assignments: The project will demonstrate the student's mastery of concepts, processes, and discussion from weeks 1-14.</td>
<td>250</td>
<td>25%</td>
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<td>Midterm and Final Exam: In-class presentation of final group project. Each group should submit the final report and presentation at weeks 7 and 14</td>
<td>250</td>
<td>25%</td>
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**Projects**

**Midterm Exam: Animatic Study** (Individual)
Students will be expected to create a visual presentation of drawn cells sequenced as an animation with a given music track.

**Final Exam: Digital Art Presentation** (Individual)
Using Game Development software will show synthesis understanding in visualization with development of an artistic demo introduction module to a game concept.

**Material and Grading Scale**

**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 $x.xx

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/)).
Grading Scale

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>% Equivalency</th>
<th>GPA Equivalency</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>94 – 100%</td>
<td>4.0</td>
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<tr>
<td>A-</td>
<td>90 – 93%</td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>87 – 89%</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td>84 – 86%</td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td>80 – 83%</td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>77 – 79%</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td>74 – 76%</td>
<td>2.00</td>
</tr>
<tr>
<td>C-</td>
<td>70 – 73%</td>
<td>1.67</td>
</tr>
<tr>
<td>D+</td>
<td>67 – 69%</td>
<td>1.33</td>
</tr>
<tr>
<td>D</td>
<td>64 – 66%</td>
<td>1.00</td>
</tr>
<tr>
<td>D-</td>
<td>60 – 63%</td>
<td>0.67</td>
</tr>
<tr>
<td>E, I, NG, S-U, WF</td>
<td>0 – 59%</td>
<td>0.00</td>
</tr>
</tbody>
</table>

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

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.

Please Note that All classes begin in the G-6 Studio and may subsequently move or be rescheduled to the computer lab as needed. Students are expected to meet on time in the G6 Studio for class meetings. A change of meeting location will be posted as a Canvas announcement.

Attendance and participation are required for this course. Attendance will be taken every class period at the time the class is scheduled to start. If a student arrives after class begins, it is their responsibility to meet with the instructor after class to notify them that they were late and would like to receive a late attendance grade.

In our course, attendance 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.

Extensions on Assignments must be discussed with the instructor and approved 72 hours prior to the due date;
late submissions will be penalized 9% of the grade for each 24 hours that transpires. After 72 hours the submissions will no longer be accepted and the grade will be registered at zero points.

Quizzes missed due to excused absences will be reopened in the Canvas module for the student to take at an appropriate time. If a quiz is missed due to an unexcused absence the score will be registered at zero points and there will be no opportunity for the student to make up the quiz.

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/

Any student who feels his/her/their performance in a course has not been evaluated accurately should first discuss any concerns with the instructor. If the disagreement is not resolved at that level, the student should consult the department chair, and if still unresolved, contact the Associate Dean for Academic Affairs.

**Course Technology**
The students will be required to have access to and use a personal computer with the access to the Internet. Image, Video and word editing software will be required for assignments. Students will also need a digital camera capture device and means of transferring that media to a computer.

**Course Communications**
Students can communicate directly with the instructor regarding the course material through the course management system (CANVAS) using “Canvas Mail”. Any other acceptable course communications will be discussed as assignments are distributed in class.

**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 Zoom, 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/scrr/process/student-conduct-honor-code/](https://www.dso.ufl.edu/scrr/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.

Potentially offensive subject material should at minimum be accompanied with a warning to the viewer or avoided altogether. While the Instructor approves of critical thinking and controversial topics there will be no tolerance of any comment of content containing harassment; violent, threatening, defrauding or obscene material; accessing or publishing pornographic, sexual comments or images, racial slurs, gender-specific comments; any comments that could reasonably offend someone on the basis of their age, sexual orientation, religious or political beliefs, marital or parental status, physical features, national origin, or disability.

**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](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](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](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](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

Student Complaints Campus

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.