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DIG2005 Introduction to Digital Technologies

Fall 2022

Course Meeting: Online Course Modality: Online

Course Description

An introduction to fundamental concepts, terms, and applications of digital and computing technologies. The topics covered provide the basis for a solid understanding of the components of common technological constructs including software, hardware, databases, networks, and contemporary entertainment and communications systems

Course Prerequisites

BA in Digital Arts & Sciences major

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

- Compare and contrast analog and digital systems
 - Describe components and functions of digital hardware and software
- Demonstrate fluency in digital technology concepts and terms
- Analyze the components and functions of consumer electronics
- Demonstrate understanding of current technology trends including AI, Blockchain, AR/VR/MR, and IOT

Materials & Books

Commented [MJ1]: All areas highlighted in green should be edited by instructors. Once your material has been added, remove any green highlights.

Required

• TBD

Supplemental

• TBD

Technology Requirements

- The students will be required to have access to and use a personal computer with the access to the Internet. Certain software will be required for class assignments. These applications exist in other platforms, however it is highly recommended the student give serious consideration to learning from the MAC platforms, which are further developed. Other platform use requires prior approval from the instructor before classes convene.
- This class is intended to meet in the computer lab to take purpose of the existing macintosh design computers specific to the production lab. This limits the class size to the amount of technology available and up to date.

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

Week	Subject	Assignment Quizzes	Assignments Due
Introdu ction and Overvi ew	Introduction and Overview	Introduction and Overview	Introduction and Overview
1	Analog and Digital Systems	QUIZ 1	5 analog and 5 digital systems
2	Numbers and Technology	QUIZ 2	Numbers and Technology
3	Electricity, Hardware, and Programming	QUIZ 3	
4	Imagery, Sound, and Consumer Electronics	QUIZ 4	Imagery, Sound, and Consumer Electronics
5	Databases	QUIZ 5	Databases
6	Network Connections, Languages & Protocols	QUIZ 6	
7	BIG DATA - Concepts and Applications	QUIZ 7	

8	Virtual, Augmented, and Mixed Realities	QUIZ 8	
9	9 Introduction to Artificial Intelligence	QUIZ 9	
10	10 The Internet of Things (IOT)	QUIZ 10	
11	11 Blockchain - Principles & Applications	QUIZ 11	
13	12 Quantum computing	QUIZ 12	
13	13 Ethics and Computing Futures	QUIZ 13	
14	14 Careers in Digital Sectors	QUIZ 14	
15	Review and preparation for Final Exam	QUIZ 15	

Grading Criteria

Assignment / Assessment	Total Points	% of Grade
Weekly quizzes	250	25
Four As s ignments	200	20
Midterm Exam	200	20
Class Participation and Attendance – Students are expected to actively participate in class discussions, both in class as well as in course online forums and outside class Group meetings.	150	15
Final Exam– Capstone presentation of the semesterlong course. It must be authored in a course approved presentation platform.	200	20

Grading Scale

Letter Grade	% Equivalency
A	94 - 100%
A-	90 - 93%
B+	87 – 89%
В	84 - 86%
B-	80 - 83%
C+	77 – 79%
С	74 – 76%
C-	70 – 73%

D+	67 – 69%
D	64 - 66%
D-	60 - 63%
E, I, NG, S-U, WF	0 – 59%

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

Materials and Supply Fees

Material and supply and equipment use fee information are 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

Attendance Policy, Class Expectations, and Make-Up Policy

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 Communications

Students can communicate directly with the instructor regarding the course material through the course management system (CANVAS) using "Canvas Mail".

Class Mental Wellness

The student will be asked to seek U matter, We care advisement during the term if the student GPA drops below 2.0 in the class or if the student is in some other jeopardy of continuance due to excessive absence or lateness.

Sensitive Topics and Materials

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.

Excused absences are consistent with university policies in the undergraduate catalog (<u>https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/</u>) and require appropriate documentation.

In general, acceptable reasons for absence from or failure to participate in class include illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, professional conferences), military obligation, severe weather conditions, religious holidays, and participation in official university activities such as music performances, athletic competition, or debate. Students must provide appropriate documentation in advance of the absence when possible. No documentation is needed for an absence due to religious observation.

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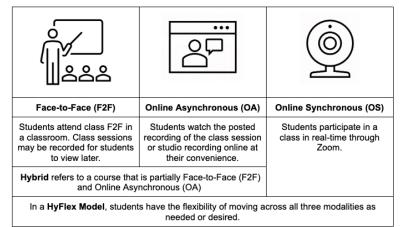
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Course Modality

Course modality is the way in which a class is offered/delivered to students by the instructor. All students, regardless of the modality, will achieve the same learning objectives. Students can check their class schedules or reference the top of this syllabus to see the format(s) available for each of their individual classes. The modality of a course does not vary during a semester, and students are expected to adhere to the instructor-defined attendance guidelines for that format. Use the guide below to familiarize yourself with the various ways classes are offered at the Digital Worlds Institute.

Commented [OC3R2]: Commented in a sense in case review new syllabus language on course modality.
Commented [OC3R2]: Commented in Justin - just made my
suggested updates in Course Modality
Commented [MLIG2]: Tanak you!

Know Your Course Modality



Course Technology

The students will be required to have access to and use a personal computer with 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 ongoing 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 DAS major's laptop computer to meet certain minimum specs for heavy graphics use, the requirements documented below must be met. <u>https://digitalworlds.ufl.edu/programs/ba-in-digital-arts-sciences/technology-requirements/</u>.

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Students can communicate directly with the instructor regarding the course material through the course management system (CANVAS) using "Canvas Mail".

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.

Creation of Original Content Ethics

For original projects and all assignment deliverables, students should remember that representations of acts of violence, coarse and offensive language, sexual behavior, bodily function and ability, neurodiversity, and personal identity are likely to cause extreme audience response, regardless of the creator's intentions. In addition, the recreation of such actions and subjects for fictional purposes may unintentionally traumatize or negatively impact those who collaborate in the creation of the images. While the university encourages students to explore themes and tell stories that may include this difficult subject matter, they should be cautioned against modes or styles of representation that might be

Commented [OC5]: @Marlin.Justin Also made a suggested update under Course Technology to state: "...Digital Worlds requires each DAS major's laptop computer to meet certain minimum specs" so that Minors or elective seekers don't think they must acquire a super-computer for lower level classes considered unnecessarily offensive or potentially triggering. Instructors, faculty, and university administrators reserve the right to not show or share any student work they feel is inappropriate for their classroom or for public exhibition, as there may be concerns about the impact of such work on the community. We encourage students to consult with their faculty when producing work that might be considered controversial, and to err on the side of being cautious when it comes to making decisions about a project's content - in other words, make the PG-13 version of your story, not the R version, and certainly not the "unrated" version. This is also to help students understand that most professional creative situations have strict guidelines and limitations on such content and how it is produced: your ability to tell stories effectively with "less" is a strong professional skill that will aid in the dissemination of your work to a broader audience.

Course Technology Support

Technology Support Center

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

For computer assistance related to Zoon, lecture recordings, student equipment, and facilities requests please email <u>support@digitalworlds.ufl.edu</u>.

UF Computing Help Desk

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 <u>UF Computing Help Desk</u> available 24 hours a day, 7 days a week at 352-392-4357 or <u>helpdesk@ufl.edu</u>.

University 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 who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <u>https://disability.ufl.edu/students/get-started/</u>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, 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: <u>http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf</u>

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: <u>https://catalog.ufl.edu/UGRD/academic-regulations/ferpa-confidentiality-student-records/</u>

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://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://gatorevals.aa.ufl.edu/students/. Students at https://gatorevals.aa.ufl.edu/students/. Students at https://gatorevals.aa.ufl.edu/students/. Students at https://gatorevals.aa.ufl.edu/students/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/

Campus and Academic Resources

U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit<u>U</u> <u>Matter, We Care website</u> to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center: <u>Visit the Counseling and Wellness Center website</u> or call 352-392-1575 for information on crisis services as well as non-crisis services.

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or <u>visit the</u> <u>Student Health Care Center website</u>.

University Police Department: Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; <u>Visit the UF Health Emergency Room and Trauma Center website</u>.

E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

Library Support: Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints On-Campus: Visit the Student Honor Code and Student Conduct Code webpage for more information.

Online Students Complaints: View the Distance Learning 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.