



Digital Worlds[®]
INSTITUTE

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Office Hours: Tuesday noon-1:00pm | Thursdays noon-1:00pm | RA Hours: TBA
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DIG4930: AI + Art/Science/Fiction

Spring 2022

v1.8

Course Meetings: Tuesdays Period 7 (1:55 PM - 2:45 PM) | Thursday Period 7 - 8 (1:55 PM - 3:50 PM)
Course Mode: Campus/Online/Hybrid
Course Location: NRG 205 (PICT) - at Digital Worlds Institute

Course Description

Artificial Intelligence:

- **What is it?**
- **What is it used for?**
- **What is at stake?**

Each week we will explore AI core concepts from three perspectives: Art, Science, and Fiction. By the end of this course, you will be able to separate the facts from the hype and learn how to leverage fiction to prototype the future.

This class is open to any student regardless of technical or creative background. We will go over key concepts in AI and creative applications of Machine Learning Technologies.

Course Prerequisites

[none]

Learning Outcomes

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

- Understand the key aspects of the field of AI
- Recognize and comprehend the basic components of the software / hardware ecosystem of AI
- Analyze the meaning and cultural functions of a variety of AI Concepts
- Understand the cultural, fictional and historical background of our current AI field
- Do research and present topics in the field of AI

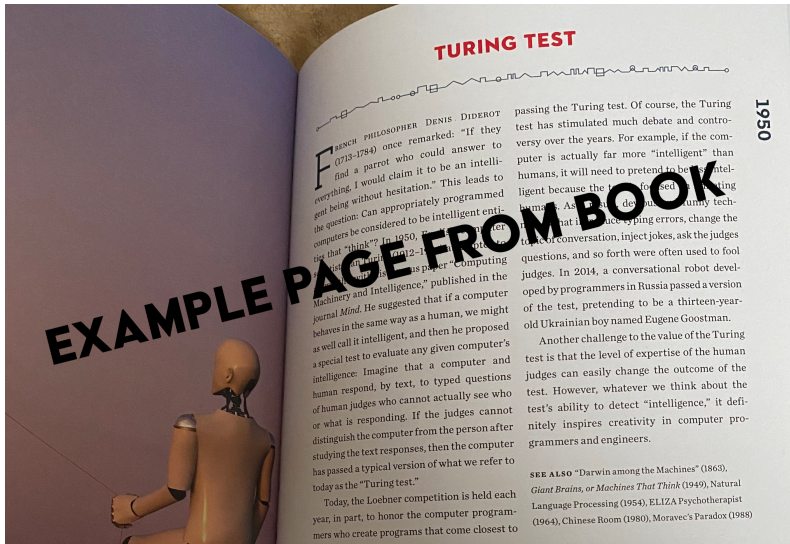
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Materials & Books

Required

- **Artificial Intelligence: An Illustrated History: From Medieval Robots to Neural Networks (Sterling Illustrated Histories) Hardcover, used or kindle edition is fine**

Example Page from book: 1 Date + 1 Topic + 1 Image = Book Structure



Supplemental

- **Recommended Text (not required): The Math Book: From Pythagoras to the 57th Dimension, 250 Milestones in the History of Mathematics (Sterling Milestones) used or kindle edition is fine.**

Course Topic Calendar

Thursday 1/6/22	Intro to class AI + Art/Science/Fiction
Tuesday 1/11/22	What is Data?
Thursday 1/13/22	Simulation
Tuesday 1/18/22	DataViz
Thursday 1/20/22	So Random, so Lossy
Tuesday 1/25/22	Artificial Intelligence: Intelligence
Thursday 1/27/22	Artificial Intelligence: Stupidity
Tuesday 2/1/22	Generative Adversarial Networks (GANs)
Thursday 2/3/22	Do Robots Dream of Electric Sheep? The Visual language of AI

Tuesday 2/8/22	Machine Vision / Recognition
Thursday 2/10/22	Robots
Tuesday 2/15/22	Brains, Neural Nets and Super Computers
Tuesday 2/17/22	Antecedent Technology
Thursday 2/22/22	2/22/22 & Text
Tuesday 2/24/22	Motion Captured
Thursday 3/1/22	Ritual
Tuesday 3/3/22	Human Assisted / Human Replacement

Spring Break

Tuesday 3/15/22	Singularity
Thursday 3/17/22	Machine Bias- We will watch Coded Bias in class.
Tuesday 3/22/22	Code your Morals / Moral Code
Thursday 3/24/22	AI Software Ecosystem pt 1
Tuesday 3/29/22	Deus Ex Machina
Thursday 3/31/22	Bots
Tuesday 4/5/22	AI/NPC/CPU in Video Games
Thursday 4/7/22	AI Software Ecosystem pt 2
Tuesday 4/12/22	Weapons Grade AI
Thursday 4/14/22	Machine Bias part 2 - and practice time for presentations
Tuesday 4/19/22	Mid-Term Presentations
Thursday 4/21/22	What is at stake?

Final Paper Due [finals week].

Course Readings and Assignment 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	Reading pages numbered in Artificial Intelligence: An Illustrated History or Quiz number due that week	Quiz due	Assignments Due
1	Read the intro of the book and 4 topics in the book (illustrations + pages)		1-6-22
2	Read any 4 pages in the book (each topic is one page in this book)		1-11-22
3	Quiz #1		1-21-22
4	Homework Assignment #1		1-28-22
5	Quiz #2		1-4-22
6	Homework Assignment #2		1-11-22
7	Quiz #3		1-18-22
8	Midterm Writing Assignment + presentation deck (5 slides)		1-25-22
9	Quiz #4		3-4-22
10	Homework Assignment #3		3-18-22
11	Quiz #5		3-25-22
12	Homework Assignment #4		4-1-22
13	Work on final essay + mid-term presentation		-
14	Mid-term Presentations Practice Day		4-14-22
15	Mid-term Presentations		4-19-22
16	Final Essay Due		4-29-22

Grading Criteria

Assignment / Assessment	Total Points	% of Grade
4 Homework assignments- illustrated topics [250 words min] 1 Date + 1 Topic +1 Image = Assignment structure per assignment: 50pts each	200	20
Mid-Term illustrated topics [250 words min] 1 Date + 1 Topic +1 Image +1 Presentation = Assignment structure: : 20pts	200	20
5 Multiple Choice quizzes: definitions from course Word Bank (100 words total) - 50 pts each	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.	100	10

Final essay from topic list answering the questions [1000 words min]: What is it? What is it used for? What is at Stake?: 300pts	300	30
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Total Word Count Written by Student Required: 2250

Grading Scale

Letter Grade	% Equivalency
A	94 – 100%
A-	90 – 93%
B+	87 – 89%
B	84 – 86%
B-	80 – 83%
C+	77 – 79%
C	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:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

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

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.

Attendance is monitored by the TA, there are no penalties for absence or tardiness. If students are disruptive or fail to follow the ethical code of conduct for DW or act in a way against the school honor code then students will lose the 10% of their grade (course participation grade). If students act in a respectful manner towards other students in class then they will keep their 10% course participation grade.

Students may make up missed homework, missed quizzes and missed exams, but must do so before the course completion, with documentation consistent with the university policies, if a student cannot make up the work in the semester the course is taught then the student will receive a failing grade for that assignment, quiz or exam or may choose to turn in proper documentation to receive an incomplete grade, in order to do this, the student must communicate this intention with the instructor and TA.

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/>

Late homework, quizzes and midterm are penalized 10% for each calendar day. If you have a documented reason that you feel should waive late points, please contact your instructor to discuss this matter as soon as possible, preferably before the due date. These requests will be considered on a case-by-case basis.. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university. A late final will need to be arranged on a case-by-case basis. Policies that can be found at:
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Quizzes

Each Quiz will be a multiple choice quiz in Canvas, with questions to match 10 words with their definitions. These words will be selected from the student word bank: 100 words total. These words will be common words pertaining to the field of AI.

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 student's laptop computer to meet certain minimum specs for heavy graphics use, the requirements documented below must be met.

<https://digitalworlds.ufl.edu/programs/ba-in-digital-arts-sciences/technology-requirements/>

Course Communications

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

COURSE VALUES

1. This is a **writing and reflection** course, but it's not a writing perfectly course, or even a writing especially well course. There is a difference between polish and perfect. I want you to banish perfectionism from your mind. Perfectionism is really just an expression of fear, and fear as we all know, is the mind killer.
2. **Fun.** If we're doing it right, this class should actually be pretty fun. That's not to say it won't be rigorous, that's not to say it won't be challenging. But you'll have pretty close to absolute license to flex your creative muscles, stretch your imaginations, and that's pretty fun, usually. If you're not having fun, you're probably doing something wrong. And if that's the case you should come speak to me, or write me an email, and together we'll get you sorted out.
3. **Respect.** In order to make sure this is a fun class for everyone and a useful class for everyone, we need to make sure we maintain an environment of mutual respect. This means respecting one another as individuals, and as artists. There will be times when you will be

asked to read and comment upon one another's work. For this to work we need to respect one another. We're all artists, we're all writers, we're all learning, and we all need to remember that.

4. **Generosity** It takes courage to share your work in public, it's an act of generosity. And we need to work on mirroring that generosity as an audience. That means we don't immediately leap to the worst possible conclusion. We extend the benefit of the doubt. We suspend disbelief. If you read something that strikes you as bad, or offensive, see if you can come up with a generous way of interpreting it. This isn't to say you aren't allowed to be offended, but simply that we should first assume the best intentions.
5. **Talk about the writing, not the writer.** The inverse of this is, try not to take criticism personally.
6. **Doing over being.** A central thesis of this course is that AI isn't any one thing in particular. Instead, I contend it is a set of related practices that are composed of different techniques, applied to various effects. Consistent with this approach, I ask that you try whenever possible to focus on what a particular AI element does, how it functions in the context of the story.
7. **Strong opinions, loosely held.** We should not be afraid to make bold claims, and back them up with strong, carefully observed evidence. However we must also be open to the possibility that we might be wrong, and we should be ready to have our minds changed.

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 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 [Technology Support Center](http://digitalworlds.ufl.edu/support) 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 requests please email support@digitalworlds.ufl.edu.

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 [UF Computing Help Desk](mailto:helpdesk@ufl.edu) available 24 hours a day, 7 days a week at 352-392-4357 or helpdesk@ufl.edu.

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 <https://disability.ufl.edu/students/get-started/>. 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:

<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 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 Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center: [Visit the Counseling and Wellness Center website](#) 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 [visit the Student Health Care Center website](#).

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; [Visit the UF Health Emergency Room and Trauma Center website](#).

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.