IDS 2935: AI + Art/Science/Fiction
Quest 1: The Examined Life

I. General Information

Class Meetings

- Spring 2024
- Tuesdays T | Period 5 - 6, (11:45 AM - 1:40 PM)
- Please check your registration to see which discussion group you signed up for and what days/times and locations it meets.
- Room: MCCA G186

Instructor

- Amelia Winger-Bearskin
- NRG 111-UF Main Campus, Digital Worlds Institute
- Virtual Office hours on Zoom Tuesdays 4-6pm
- Amelia@digitalworlds.ufl.edu

Course Description

Quest and General Education Credit

- Quest 1
- Humanities
- Writing Requirement (WR) 2000 words

This course accomplishes the [Quest](#) and [General Education](#) objectives of the subject areas listed above. A minimum grade of C is required for Quest and General Education credit. Courses intended to satisfy Quest and General Education requirements cannot be taken S-U.

Required Readings and Works

Artificial Intelligence: An Illustrated History: From Medieval Robots to Neural Networks (Sterling Illustrated Histories) Hardcover, used, Kindle and any edition is fine.

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

Materials and Supplies Fees: n/a

II. Graded Work

Description of Graded Work

Week	Reading pages numbered in Artificial Intelligence: An Illustrated History or Quiz number due that week
1	Read pages 1-20 in the book
2	Read pages 20-40 in the book
3	Quiz #1
4	Homework Assignment #1
5	Quiz #2
6	Homework Assignment #2
7	Quiz #3
8	Research Writing Assignment + presentation deck (5 slides)
9	Quiz #4
10	Homework Assignment #3
11	Quiz #5
12	Introduction to research presentation video production
13	Research Presentation workshop day
14	Research Presentations Practice Day
15	Research Presentations (Videos)
16	Homework Assignment #4

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 that is in the weekly slide decks for the lessons in class. These words will be common words pertaining to the field of AI and can be found in provided class notes or in the book.

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
Research Essay, Presentation Deck and Video Presentation on illustrated topics [1200 words min] 1 Date + 1 Topic +1 Image +1 Presentation + 1 Video presentation	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

Total Word Count Written by Student Required: 2250

Grading Scale

For information on how UF assigns grade points, visit: https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/

A	94 – 100%		C	74 – 76%
A-	90 – 93%		C-	70 – 73%
B+	87 – 89%		D+	67 – 69%
B	84 – 86%		D	64 – 66%
B-	80 – 83%		D-	60 – 63%
C+	77 – 79%		E	<60

Grading Rubric(s)

Writing Assessment Rubric and Statements

	SATISFACTORY (Y)	UNSATISFACTORY (N)
CONTENT	Papers exhibit at least some evidence of ideas that respond to the topic with complexity, critically evaluating and synthesizing sources, and provide at least an adequate discussion with basic understanding of sources.	Papers either include a central idea(s) that is unclear or off-topic or provide only minimal or inadequate discussion of ideas. Papers may also lack sufficient or appropriate sources.
ORGANIZATION AND COHERENCE	Documents and paragraphs exhibit at least some identifiable structure for topics, including a clear thesis statement but may require readers to work to follow progression of ideas.	Documents and paragraphs lack clearly identifiable organization, may lack any coherent sense of logic in associating and organizing ideas, and may also lack transitions and coherence to guide the reader.
ARGUMENT AND SUPPORT	Documents use persuasive and confident presentation of ideas, strongly supported with evidence. At the weak end of the Satisfactory range, documents may provide only generalized discussion of ideas or may provide adequate discussion but rely on weak support for arguments.	Documents make only weak generalizations, providing little or no support, as in summaries or narratives that fail to provide critical analysis.
STYLE	Documents use a writing style with word choice appropriate to the context, genre, and discipline. Sentences should display complexity and logical sentence structure. At a minimum, documents will display a less precise use of vocabulary and an uneven use of sentence structure or a writing style that occasionally veers away from word choice or tone appropriate to the context, genre, and discipline.	Documents rely on word usage that is inappropriate for the context, genre, or discipline. Sentences may be overly long or short with awkward construction. Documents may also use words incorrectly.
MECHANICS	Papers will feature correct or error-free presentation of ideas. At the weak end of the Satisfactory range, papers may contain some spelling, punctuation, or grammatical errors that remain unobtrusive so they do not muddy the paper's argument or points.	Papers contain so many mechanical or grammatical errors that they impede the reader's understanding or severely undermine the writer's credibility.

- The Writing Requirement (WR) ensures students both maintain their fluency in writing and use writing as a tool to facilitate learning.
- The instructor will evaluate and provide feedback before the end of the course on all of the student's written assignments with respect to grammar, punctuation, clarity, coherence, and organization.
- WR course grades have two components. To receive writing requirement credit, a student must receive a grade of C or higher and a satisfactory completion of the writing component of the course.

Participation Rubric

	High Quality	Average	Needs Improvement
Informed: Shows evidence of having done the assigned work.			
Thoughtful: Shows evidence of having understood and considered issues raised.			
Considerate: Takes the perspective others into account.			

III. Annotated Weekly Schedule

Week	Topics, Homework, and Assignments
Week 1	• Topic: AI + Art/Science/Fiction and What is Data • Summary: learn the history we will be covering and position the timeline in the book. Go over key themes, principles, terminology, and theory or methodologies used within the AI and the Arts discipline. • Required Readings/Works: pages 1-25 • Assignment: watch how to setup your p5.js project in canvas
Week 2	• Topic: Simulation and Data Viz • Summary: learn the history of Simulation and Simulacra. Go over key themes, principles, terminology, and theory or methodologies used with Simulation Hypothesis in fiction, look at Data Visualization to skew opinions. • Required Readings/Works: pages 26-31 • Assignment: Look at another example project in Glitch for p5.js and remix it, take a screenshot of your remix.
Week 3	• Topic: Intelligence and Random Numbers • Summary: learn the history of Machine Intelligence. Go over key themes, principles, terminology, and theory or methodologies used with random number generators and their use with color. • Required Readings/Works: pages 32-39 • Assignment: Quiz 1 due by the end of the week
Week 4	• Topic: Learning and GANs

Week	Topics, Homework, and Assignments
	• Summary: learn the history of GANs and Human assumptions in learning. Go over key themes, principles, terminology, and theory or methodologies used with Style Transfer and GANs. • Required Readings/Works: pages 40-47 • Assignment: Assignment #1 due by the end of the week
Week 5	• Topic: Visual Language of AI and Machine Vision • Summary: learn the history of Machine Vision and the visual language of AI in fiction. Go over key themes, principles, terminology, and theory or methodologies used with Machine Vision. • Required Readings/Works: pages 51-56 • Assignment: Quiz #2 due by the end of the week
Week 6	• Topic: Robots and Neural Nets • Summary: learn the history of Neural Networks and the use of Robots and AI in fiction. Go over key themes, principles, terminology, and theory or methodologies used with Neural Nets. • Required Readings/Works: pages 57-66 • Assignment: Homework Assignment #2 due by the end of the week
Week 7	• Topic: Antecedent Technology and Natural Language Processing • Summary: learn the history of Natural Language Processing (NLP) and the use of NLP in creative practices. Go over key themes, principles, terminology of technologies created by indigenous cultures in the Americas. • Required Readings/Works: pages 67-70 • Assignment: Quiz #3 due by the end of the week
Week 8	• Topic: Motion Capture and Ritual • Summary: learn the history of Motion Capture and the use of Motion Capture in creative practices. Go over key themes, principles, terminology of technologies used in ritual and automation. • Required Readings/Works: pages 71-75 • Assignment: Mid-Term Writing Assignment
Week 9	• Topic: Motion Capture and Ritual • Summary: learn the history of Motion Capture and the use of Motion Capture in creative practices. Go over key themes, principles, terminology of technologies used in ritual and automation. • Required Readings/Works: pages 71-75 • Assignment: Mid-Term Writing Assignment
Week 10	• Topic: Human Assisted/Human Replacement and the Singularity • Summary: learn the history of Human Assisted design. Go over key themes, principles, terminology of technologies used in Human Replacement and the concept of the Singularity. • Required Readings/Works: pages 76-80 • Assignment: Quiz #4 due at the end of the week
Week 11	• Topic: Machine Bias and Moral Codes

Week	Topics, Homework, and Assignments
	• Summary: learn the history of Machine Bias. Go over key themes, principles, terminology of technologies used in developing an ethical framework for software development. • Required Readings/Works: pages 81-90 • Assignment: Assignment #3 due at the end of the week
Week 12	• Topic: AI Software Architecture and Deus Ex Machina • Summary: learn the history of Deus Ex Machina. Go over key themes, principles, terminology of technologies used in developing AI Software and services. • Required Readings/Works: pages 91-104 • Assignment: Quiz#5 due at the end of the week
Week 13	• Topic: Bots and NPC creation in Video Games • Summary: learn the history of chatbots. Go over key themes, principles, terminology of technologies used in developing Chatbots and NPC creation in Video Games. • Assignment: Quiz#5 due at the end of the week
Week 14	• Topic: Software Architecture and Weapons Grade AI • Summary: learn the history of weapons grade AI. Go over key themes, principles, terminology of technologies used in developing AI software and services part 2. • Assignment: Homework Assignment #4 due at the end of the week
Week 15	• Topic: Machine Bias Part 2 and Practice for Presentations • Summary: learn the history of weapons grade AI. Go over key themes, principles, terminology of technologies used in developing AI software and services part 2. • Assignment: Work on presentations • Topic: Presentations and What is at Stake? • Summary: Student Presentations of midterm lightning talks and summary of What is at Stake with AI. • Assignment: Work on Final Essay

IV. Student Learning Outcomes (SLOs)

At the end of this course, students will be expected to have achieved the Quest and General Education learning outcomes as follows:

Content: Students demonstrate competence in the terminology, concepts, theories, and methodologies used within the discipline of AI and the Arts.

- Identify, describe, and explain AI terms and concepts that define what AI is used for, what it is, and what is at stake in our culture regarding the field of AI and the Arts(B).
- Assessments: Homework assignments, exams, lightning presentation, final paper.

- Identify, describe, and explain the role of AI comparative fields of Art, Science and Fiction and how it aids in an understanding of the cultural significance of AI, and how cultural factors have helped shape the field. (Quest 2, B).
- Assessments: Homework assignments, exams, lightning presentation, and a final paper.

Critical Thinking: Students carefully and logically analyze information from multiple perspectives and develop reasoned solutions to problems within the discipline of AI and the Arts.
- Critically analyze and evaluate qualitative and quantitative data derived from the field of AI and the application of machine learning technologies in the Arts, Sciences and Fiction. (Quest 2, B).
- Assessments: Homework assignments, exams, lightning presentation, and a final paper.
- Critically evaluate and assess the contribution of the analysis of the field of AI and its development, with respect to what is known (not known, and unknowable) in the history of the field from ancient to modern times. (Quest 2, B).
- Assessments: Homework assignments, exams, lightning presentation, and a final paper.

Communication: Students communicate knowledge, ideas and reasoning clearly and effectively in written and oral forms appropriate to the discipline(s).
- Develop and present in writing the analysis of qualitative and quantitative data, and logic to draw reasonable conclusions based on their analysis on a topic chosen in the field of AI. (Quest 2, B).
- Assessments: Homework assignments, lightning presentation, and final paper.

Connection: Students connect course content with meaningful critical reflection on their intellectual, personal, and professional development at UF and beyond.
- Analyze and compare the content in the book with the supplemental educational material as well as their engagement with creative coding. (Quest 2).
- Assessments: Lightning presentation, and final paper.

V. Quest Learning Experiences

1. Details of Experiential Learning Component

Students will have Creative Coding assignments that they can do on any internet enabled device. They will explore themes of AI and the Arts through their interaction with creative code. These reflections will be asynchronous and done via Canvas and the internet browser of the student's choice.

2. Details of Self-Reflection Component

Students will have Self-Reflection Components in the form of responses and creative coding activities that they will submit via their assignments in Canvas.

VI. Required Policies

Attendance 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/ugrad/current/regulations/info/attendance.aspx

Students Requiring Accommodation

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.

UF Evaluations Process

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/.

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.

Counseling and Wellness Center

Contact information for the Counseling and Wellness Center: http://www.counseling.ufl.edu/ , 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

The Writing Studio

The writing studio is committed to helping University of Florida students meet their academic and professional goals by becoming better writers. Visit the writing studio online at http://writing.ufl.edu/writing-studio/ or in 2215 Turlington Hall for one-on-one consultations and workshops.

In-Class Recordings

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.