

ENC 1145: Writing about Algorithms

Instructor: K. Artiga
Room: MAT 0118
Section: 35G8 Class: 12728

Monday, Wednesday, Friday at 3:00 PM to 3:50 PM
Office Hours: 8 AM - 9 AM EST (Thursday)
Contact via Canvas

This course examines algorithms as an ontological, philosophical, computational, and rhetorical object. A particular focus will be paid on the development of contemporary algorithms through the field of computer vision. Consequently, the readings for this course will take a close look at the nature of perception, images, computation, and technology.

In addition to readings from fields like computer science, philosophy, and media studies, this course will also examine literary representations of artificial intelligence, identity, and surveillance. Students will consider the philosophical, political, and sociocultural implications of emerging algorithmic technologies by preparing written work engaging with the ongoing debates/discussions about artificial intelligence, machine learning, and tech regulation.

Required Texts:

Most texts will be available via Canvas or UF Libraries for free. However, the following texts are required for the course and are not available via Canvas:

The End of Forgetting by Kate Eichhorn, ISBN: 9780674976696

The Age of Surveillance Capitalism by Shoshana Zuboff, ISBN: 9781610395694

The Undersea Network by Nicole Starosielski, ISBN: 9780822357551

Students will engage with all course material and will demonstrate competence in the terminology, concepts, theories, and methodologies used within the disciplines explored for this course.

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.

Grading for this course will be rigorous. If an assignment illustrates disregard for spelling, grammar, citation guidelines, or a general carelessness in the writing, the assignment will be failed. Do not rely on your instructor for copy-editing, even on drafts.

The writing assignments for this course are designed to meet the minimum requirements of the University Writing Requirement credit. **To satisfy this requirement, every assignment's word count must be fulfilled. Submitted assignments short of the minimum word count will receive zero credit.**

Grading Scale

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	0-59

This course confers General Education credit for Composition (C). Composition courses provide instruction in the methods and conventions of standard written English (i.e., grammar, punctuation, usage) and the techniques that produce effective texts. Composition courses are writing intensive, require multiple writing assignments submitted to your instructor for feedback to fulfill 6,000 of the university's 24,000-word writing requirement.

Course content should include multiple forms of effective writing, different writing styles, approaches and formats, and methods to adapt writing to different audiences, purposes, and contexts.

Students should learn to organize complex arguments in writing using thesis statements, claims and evidence, and to analyze writing for errors in logic.

Note: This syllabus is subject to revision to best meet learning objectives.

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General Education Learning Outcomes:

At the end of this course, students will be expected to have achieved the following learning outcomes in content, communication, and critical thinking:

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

Communication: Students communicate knowledge, ideas, and reasoning clearly and effectively in written and oral forms appropriate to the discipline. Students will participate in class discussions throughout the semester to reflect on assigned readings.

Critical Thinking: Students analyze information carefully and logically from multiple perspectives, using discipline-specific methods, and develop reasoned solutions to problems.

Assessment Rubric

The instructor will evaluate and provide feedback on the student's written assignments with respect to content, organization and coherence, argument and support, style, clarity, grammar, punctuation, and mechanics. Conferring credit for the University Writing Requirement, this course requires that papers conform to the following assessment rubric. More specific rubrics and guidelines applicable to individual assignments may be delivered during the course of the semester.

	Satisfactory	Unsatisfactory
Content	Papers exhibit evidence of ideas that respond to the topic with complexity, critically evaluating and synthesizing sources, and provide 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 identifiable structure for topics, including a clear thesis statement and topic sentences.	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 structure.	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 a few spelling, punctuation, or grammatical errors that remain unobtrusive and do not obscure 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.

Assignments: The following are the deliverables expected from students throughout the semester:

Essays (50% of final grade)

Students will write two essays throughout the semester. Each student will develop an argument related to the themes, ideas, and questions explored in class. The essays will be well-researched, persuasive, and robust.

The first paper will explore the themes/works assigned during the first half of the term (1000-1250 words).

The second will be a persuasive paper making an argument related to emerging algorithmic technologies and/or their related philosophical, political, or ontological underpinnings (1000-1250).

Weekly Entries (20% of final grade)

Each week, students will write 300-word entries related to the week's readings. These entries will be due by the end of the week. Students will explain and synthesize the readings, ask questions, and relate the work(s) to key course themes.

Weekly entries are mandatory. Students are responsible for reading works for days they were absent. Students will be expected to turn in the weekly reading entries each week via Canvas.

Multimodal Project (20% of final grade)

Students will have an opportunity to create a video, podcast, and/or other multimodal project during the course.

Class Reading Guide (10% of final grade)

Students will create a 500-word class reading guide based on the assigned readings for one class session. A schedule will be provided that assigns each student a specific date for their guide. Use at least two or three outside sources to bring new perspectives to the discussion. Address the discussion question provided on the syllabus for your assigned class session. End the guide with questions drawn from your research to lead class discussion. Post the guide on Canvas as a discussion post the day before your assigned class session.

Revision

Students will have the option to revise one paper before the revision deadline.

ENC 1145: Writing about Algorithms (Calendar)

	Monday	Wednesday	Friday
Unit 1: Models of History	1/9 Why write about algorithms? Reading(s): Course syllabus	1/11 Are algorithms our new Gods? Reading(s): Bogost, “The Cathedral of Computation” (2015)	1/13 Are algorithms magical? Reading(s): Finn, “Introduction: Codes and Magic,” <i>What Algorithms Want</i> (2017), pp. 1–2. Finn, “Introduction: The Cathedral of Computation,” <i>What Algorithms Want</i> (2017), pp. 6–10.
	1/16 No class session	1/18 When did the information age begin? Reading(s): Anderson, “The Origins of National Consciousness,” <i>Imagined Communities</i> (2006), pp. 37-46. Tufekci, “Epilogue: The Uncertain Climb,” <i>Twitter and Tear Gas</i> (2017), pp. 261–267. Optional: TED-Ed. (2016). The evolution of the book—Julie Dreyfuss. Oxford Academic (Oxford University Press). (2017). The Protestant Reformation and the Printing Press.	1/20 Is prohibiting deepfakes the new iconoclasm? Reading(s): Britannica, Iconoclastic Controversy (n.d). Barasch, “The Biblical Prohibition of Images,” <i>Icon</i> (1992), pp. 13–21 Barasch, “Antiquity I: The Animated Image: Eidolon,” <i>Icon</i> (1992), pp. 26–28 Barasch, “Tertullian,” <i>Icon</i> (1992), pp. 113–119 TED. (2019). How deepfakes undermine truth and threaten democracy Danielle Citron.

Additional deadlines: 300-word reading entries due by **Sunday at 11:59pm each week** (excluding spring break and last week of class).

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	Monday	Wednesday	Friday
Unit 1: Models of History	1/23 What are technical images? Reading(s): Flusser, "Introduction," <i>Into the Universe of Technical Images</i> (2011), pp.ix–xxiv Flusser, <i>Into the Universe of Technical Images</i> (2011), pp. 3–32	1/25 Is math real or invented? Reading(s): TED-Ed (Director). (2014, October 27). Is math discovered or invented? PBS Idea Channel (Director). (2013, June 3). Is Math a Feature of the Universe or a Feature of Human Creation? Idea Channel PBS. Vihart (Director). (2012, June 12). What was up with Pythagoras?	1/27 Is freedom possible in the technical universe? Reading(s): Heidegger, "The Question Concerning Technology" (1958), <i>The Question Concerning Technology and Other Essays</i> , translated by William Lovitt (1977), pp. 3-35
Unit 2: Computers and Perception	1/30 What does it mean to see? Reading(s): Bergson, "Introduction," "Chapter 1," <i>Matter and Memory</i> (1896)	2/1 What's the history of artificial neural networks? Reading(s): Rosenblatt, "The Perceptron: A Probabilistic Model for Information Storage and Organization in the Brain," <i>Psychological Review</i> (1958), pp. 386–392	2/3 Is reality a computer interface? Reading(s): Hoffman, "The Interface Theory of Perception: Natural Selection Drives True Perception to Swift Extinction," <i>Object Categorization: Computer and Human Vision Perspectives</i> (2009) p. 148–164 Optional: Hoffman, D. (2015.). Donald Hoffman: Do we see reality as it is? TED Talk.
	2/6 Can machines think? Reading(s): Turing, "Computer Machinery and Intelligence," <i>Mind</i> , LIX (236), (1950), 433–460 Olazaran, "A Sociological History of the Neural Network Controversy," <i>Advances in Computers</i> (1996), pp. 335-350	2/8 What can't computers do? Reading(s): Dreyfus, "Part II. Assumptions Underlying Persistent Optimism," <i>What Computers Can't Do</i> (1972) Groups are assigned different sections of this work.	2/10 Why is computer vision important? Reading(s): Halpern, "Prologue," "Introduction," <i>Beautiful Data: A History of Vision and Reason since 1945</i> (2014)

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Unit 2: Computers and Perception	<p>2/13</p> <p>What do machines see?</p> <p>Reading(s):</p> <p>Halpern, “Chapter 1” and “Cybernetic Vision” (pp. 204–207), <i>Beautiful Data: A History of Vision and Reason since 1945</i> (2014)</p>	<p>2/15</p> <p>Do algorithms see race?</p> <p>Reading(s):</p> <p>Nobel, “The Importance of Google” + “Search Results as Power” <i>Algorithms of Oppression</i> (2018), pp. 34–51</p> <p>McWhorter, “‘Racist’ Technology Is A Bug—Not a Crime,” <i>Time</i> (2016)</p> <p>Cabreros, “Why an algorithm can never truly be ‘fair,’” <i>Los Angeles Times</i> (2022)</p>	<p>2/17</p> <p>Do algorithms see gender?</p> <p>Reading(s):</p> <p>Nobel, <i>Algorithms of Oppression</i> (2018), pp. 119-133</p> <p>Nagle, <i>Kill All Normies</i> (2017), pp. 75–86</p>
Unit 3: Subjectivity and Surveillance	<p>2/20</p> <p>How do algorithms impact modernity?</p> <p>Reading(s): Zuboff, <i>The Age of Surveillance Capitalism</i> (2019):</p> <p>pp. 8–14 (“III. What Is Surveillance Capitalism?” and “IV. The Unprecedented”)</p> <p>pp. 27–37 (from start of Ch. 2 to the end of “II. The Two Modernities”)</p> <p>Group 1:</p> <p>pp. 37–41 (“III. The Neoliberal Habitat”)</p> <p>Group 2:</p> <p>pp. 41–46 (“The Instability of the Second Modernity”)</p>	<p>2/22</p> <p>What is the relationship between algorithms and capital?</p> <p>Reading(s): Zuboff, <i>The Age of Surveillance Capitalism</i> (2019):</p> <p>pp. 67–70 (“II. A Balance of Power”)</p> <p>pp. 74–84 (“IV. The Discovery of Behavioral Surplus” and “Surplus at Scale”)</p> <p>pp. 98–101 (“I. Human Natural Resources”)</p>	<p>2/24</p> <p>What’s the relationship between algorithms and the state?</p> <p>Reading(s): Zuboff, <i>The Age of Surveillance Capitalism</i> (2019):</p> <p>pp. 112–120 (“IV. Shelter: Surveillance Exceptionalism”)</p> <p>pp. 138–140 (“The Dispossession Cycle”)</p>
	<p>2/27</p> <p>Do algorithms change how we learn?</p> <p>Reading(s): Zuboff, <i>The Age of Surveillance Capitalism</i> (2019):</p> <p>pp. 187–192 (“IV. The New Priesthood” and “V. The Privatization of the Division of Learning”)</p>	<p>3/1</p> <p>How do algorithms render reality?</p> <p>Reading(s): Zuboff, <i>The Age of Surveillance Capitalism</i> (2019):</p> <p>pp. 242–254 (“II. Body Rendition”)</p> <p>pp. 299–309 (“II. Facebook Writes the Music”)</p>	<p>3/3</p> <p>Do algorithms manipulate our actions?</p> <p>Reading(s): Zuboff, <i>The Age of Surveillance Capitalism</i> (2019):</p> <p>pp. 309–320 (“III. Pokémon Go! Do!”)</p> <p><i>The Bling Ring</i> (2013)</p>

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Unit 3: Subjectivity and Surveillance	3/6 What is the age of the data subject? Reading(s): <i>Perfect Blue</i> (1997) Eichhorn, <i>The End of Forgetting</i> (2019), pp. 1–51	3/8 How do algorithms impact human memory? Reading(s): Eichhorn, <i>The End of Forgetting</i> (2019), pp. 51–95	3/10 Is it possible to digitally disappear? Reading(s): Eichhorn, <i>The End of Forgetting</i> (2019), pp. 95–145
Spring Break	3/13	3/15	3/17
Unit 4: Algorithms and the Public Environment	3/20 Where is the internet? Reading(s): Starosielski, “Introduction: Against Flow,” <i>The Undersea Network</i> (2015), pp. 1–10 (Audiobook available) Vox. (2015). Thin underwater cables hold the internet. See a map of them all.	3/22 Where is the cloud? Reading(s): Sattiraju, “Google data centers’ secret cost: billions of gallons of water,” <i>Chicago Daily Herald</i> (2020). Bridle, “Chasm,” <i>New Dark Age</i> (2018) (Audiobook available) Starosielski, <i>The Undersea Network</i> (2015), “Telegraph: The Cable Colony,” pp. 99–111 (Audiobook available)	3/24 How much power does computation require? Reading(s): Starosielski, <i>The Undersea Network</i> (2015), “Monitoring” + “Expanding Uses,” pp. 210–221 (Audiobook available) San Junipero, <i>Black Mirror</i> (2016)
Paper 1: Due 3/19/23	3/27 How does social media impact the social environment? Reading(s): Tufekci “Leading the Leaderless,” <i>Twitter and Tear Gas</i> , (2017) pp. 49–82 (Audiobook available) Haidt, “After Babel,” <i>The Atlantic</i> (2022) (Audio available)	3/29 How do platforms use algorithms? Reading(s): Tufekci, “Platforms and Algorithms” <i>Twitter and Tear Gas</i> (2017) pp. 132–163 (Audiobook available) Zuboff, <i>The Age of Surveillance Capitalism</i> (2019), “III. This Century’s Curse” pp. 461–465	3/31 How do states use algorithms? Reading(s): Tufekci, <i>Twitter and Tear Gas</i> (2017) “Governments Strike Back,” pp. 223–260 (Audiobook available)

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Unit 5: Algorithms of Intimacies Revision: Due: 4/3/23	4/3 Can AI have sex? Reading(s): <i>Her</i> (2013) Lobel, “The Pleasure and Danger of Loving a Robot,” <i>The Equality Machine</i> (2022)	4/5 How is algorithmic dating impacting human sexuality? Reading(s): Lobel, “Algorithms of Desire,” <i>The Equality Machine</i> (2022) Galloway, “A Few(er) Good Men,” <i>No Mercy / No Malice</i> (2021) Optional: Big Think. (2023). Male inequality, explained by an expert.	4/7 Why do trolls circulate sexually obscene and abusive content? Reading(s): Bartlett, “Chapter 1: Unmasking the Trolls” + “Chapter 4: Three Clicks,” <i>The Dark Net: Inside the Digital Underworld</i> (2014) Optional: <i>Border</i> (2018)
	4/10 How are algorithms immersive? Reading(s): Zuboff, <i>The Age of Surveillance Capitalism</i> (2019), “II. The Hand and the Glove” pp. 449–453 Twitter thread: King, Aziah (_zolarmoon) <i>Zola</i> (2021)	4/12 Have algorithms changed storytelling? Reading(s): <i>Tangerine</i> (2015) Baldrige, “A Feature Film Shot on iPhones.” <i>Photo District News</i> , vol. 35, no. 7. (2015), pp. 84+ Optional: Video Essays: How Sean Baker shot <i>Tangerine</i> + <i>Tangerine</i> : Why it Matters	4/14 What is the future of AI? Reading(s): Optional: <i>Ex Machina</i> (2014)
	4/17 Reading(s): <i>Serial Experiments Lain</i> (1998); episodes 1-5	4/19 Reading(s): <i>Serial Experiments Lain</i> (1998); episodes 6-9	4/21 Reading(s): <i>Serial Experiments Lain</i> (1998); episodes 10-13
Final Week Capstone Project Due: 5/3/23 at noon	4/24 <p style="text-align: center;">Presentations</p>	4/26 <p style="text-align: center;">Presentations</p>	4/28 <p style="text-align: center;">No class session</p>

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Attendance

Attendance is required. **If students miss more than six periods during the term, they will fail the entire course.** Double periods count as two absences. Exempted from this policy are only those absences due to university-sponsored events, such as athletics and band, religious holidays, quarantine, illness, or serious family emergencies. For absences due to quarantine or illness, your instructor may require a signed doctor's note or confirmation from UF Screen, Test, & Protect. Students are responsible for updating their UF-required Screen, Test, & Protect status. Absences related to university-sponsored events must be discussed with the instructor prior to the date that will be missed. Requirements for class attendance and make-up exams, assignments, and other work in this class are consistent with university policies that can be found at <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Please note: If students are absent, it is their responsibility to make themselves aware of all due dates. If absent due to a scheduled event, students are still responsible for turning assignments in on time.

Tardiness: If students enter class after roll has been taken, they are late, which disrupts the entire class. **Two instances of tardiness count as one absence.**

Plagiarism

Plagiarism is a serious violation of the Student Honor Code. The Honor Code prohibits plagiarism and defines it as follows:

Plagiarism. A student shall not represent as the student's own work all or any portion of the work of another. Plagiarism includes but is not limited to:

1. Quoting oral or written materials including but not limited to those found on the internet, whether published or unpublished, without proper attribution.
2. Submitting a document or assignment which in whole or in part is identical or substantially identical to a document or assignment not authored by the student.

University of Florida students are responsible for reading, understanding, and abiding by the entire Student Honor Code, which can be found at <https://sccr.dso.ufl.edu/students/student-conduct-code/>.

Important Tip: You should never copy and paste something from the Internet without providing the exact location from which it came. Do not use AI/chatbots to write papers.

Classroom Behavior

Please keep in mind that students come from diverse cultural, economic, and ethnic backgrounds. Some of the texts we will discuss and write about engage controversial topics and opinions. Diversified student backgrounds combined with provocative texts require that you demonstrate respect for ideas that may differ from your own. Disrespectful behavior will result in dismissal, and accordingly absence, from the class.

While it is acceptable to take notes on a laptop, being distracted, or causing distraction, by doing non-class-work is not, and you will be required to shut down your laptop. All other electronic devices are not permitted, except as specifically announced by the instructor beforehand.

In-Class Work

Active participation is a crucial part of success in this class. Students will be expected to work in small groups and participate in group discussions, writing workshops, peer reviews, and other in-class activities. Be prepared for unannounced quizzes or activities on the readings or classroom discussion. Students must be present for all in-class activities to receive credit for them. In-class work cannot be made up. Writing workshops require that students provide constructive feedback about their peers' writing. In general, students are expected to contribute constructively to each class session.

Paper Maintenance Responsibilities

Students are responsible for maintaining duplicate copies of all work submitted in this course and retaining all returned, graded work until the semester is over. Should the need arise for a resubmission of papers or a review of graded papers, it is the student's responsibility to have and to make available this material.

Mode of Submission

Papers and drafts are due at the beginning of class or online at the assigned deadline. Late papers will not be accepted. **Failure of technology is not an excuse.** All papers will be submitted as MS Word (.doc, .docx) documents to Canvas. Final drafts should be polished and presented in a professional manner. All papers must be in 12-point Times New Roman font, double-spaced with 1-inch margins and pages numbered.

Course Evaluations

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.ua.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.ua.ufl.edu/public-results/>.

Writing Studio

The University Writing Studio is located in Turlington 2215 and is available to all UF students. Free appointments can be made up to twice a week. They are currently offering online appointments. See <https://writing.ufl.edu/writing-studio/> to learn more.

Recording Policy

Class lectures may only be recorded for purposes defined by House Bill 233/Section 1004.097. A class lecture does not include academic exercises involving 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.

A recording of a class lecture may not be published without the consent of the lecturer. Publish is defined as sharing, transmitting, circulating, distributing, or providing 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. A recording, or transcript of the recording, is considered to be published if it is posted on or uploaded to, in whole or part, any media platform, including but not limited to social media, book, magazine, newspaper or leaflet. 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.

Students with Disabilities

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.

Students in Distress

For guidance during distressing situations, please contact U Matter We Care or the Dean of Students Office. They can help students navigate resources and academic procedures for personal, medical, and academic issues.

U Matter We Care: <http://umatter.ufl.edu>, umatter@ufl.edu, 352-294-2273 (CARE)

Dean of Students: <https://dso.ufl.edu/>, 202 Peabody Hall, (352) 392-1261

Counseling and Wellness Center: <https://counseling.ufl.edu/>, 3190 Radio Road, (352) 392-1575

Field and Fork Pantry: <https://fieldandfork.ufl.edu/>, located near McCarty B, 352-294-2208

Student Health Care Center: <http://shcc.ufl.edu/>, multiple locations, (352) 392-1161