

**University of Calgary**  
**Department of Communication, Media and Film**

**COMS 401.71 L02: Algorithmic Culture**

**FALL 2021: September 7 – December 8 (excluding Oct. 11 and Nov. 7 – 13)**

**Lectures: Mondays and Wednesdays | 2:00-3:15 p.m.**

**IMPORTANT NOTE FOR ONLINE COURSE DELIVERY**

**Asynchronous & Synchronous Course Components:** Please read this outline carefully to see which course components will be offered synchronously (where you are expected to participate in person or online at the usual scheduled course time) and which components will be offered asynchronously (to be completed on your own time). Synchronous sessions hosted on Zoom can be accessed on D2L by clicking on the Communications tab and selecting Zoom.

**Note:** If you will not be able to participate in synchronous in-class or online class sessions owing to time differences or geographical location, then consult with the instructor to see if accommodation is possible or arrange to take this course in a future term.

**Online Quizzes and Exams:** You will be allowed a minimum window of 24 hours to access online quizzes and exams, but there may be a time limit for completing a quiz once you open it. Read the description carefully. The time specified for any timed online assessments includes 50% extra time.

<b>Instructor:</b>	Crystal Chokshi
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<b>Web Page:</b>	D2L (available through MyUofC portal)
<b>Office Hours:</b>	Monday, 3:15-4:15 p.m.; or by appointment (all via Zoom)

**Important note on course delivery**

This course will be offered entirely online. Lectures will be synchronous. A Zoom link will be available in D2L.

**Course Description**

This course will supply students with critical theory and frameworks for interrogating a society that is increasingly surveilled, organized, and materially impacted by algorithms. It will take up the call-to-action made by many scholars for researchers in the social sciences and humanities to collaborate in the design of digital futures.

**Objectives of the Course**

This course will:

- Supply students with critical theory and frameworks for interrogating algorithmic culture and concepts such as “algorithms,” “AI,” “big data,” and “data science.”
- Encourage students to think critically about the relationship between algorithms and various forms of discrimination, and furthermore to think about how they can intervene in discriminatory algorithmic systems.

- Challenge students to engage in critical, practice-based interventions.
- Advocate for the important role critical media scholars can (and should) play in the design of digital futures.
- Help students develop communication and presentation practices for professional settings.

### **Textbooks and Readings**

There is no textbook for this course. All readings (articles, book chapters, and links to online sources) will be made available in D2L.

Please note that required readings should be read prior to the lecture for which they are assigned.

### **Additional Information**

Students are responsible for reading and following all course and university policies discussed in this outline.

### **Email**

I need up to two full business days (defined as Monday to Friday between the hours of 9 a.m. and 4 p.m.) to reply to email. I do not reply to email on weekends or holidays.

### **Important Teaching and Learning Practices**

- I assume you have chosen to be here. This means I expect you to show up. Read. Talk. Be present.
- Everyone should feel safe and smart. It is our collective responsibility to maintain an environment in which everyone feels that way throughout the term. Language that is homophobic, transphobic, sexist, racist, inflammatory, or foul is not permitted.
- If you are running late one day, it's okay. If you have a child who one day needs to attend class with you, it's okay. The (virtual) door is open to everyone who wants to be here, and who is here respectful of their peers and of me.

### **Notes on Attendance and Absences**

If you miss a day of class, please make up the material by getting notes from a classmate. I will not supply you with notes or a summary of what you missed. When possible, I will upload to D2L material from lecture; but, this will not always happen. Please plan accordingly.

Please note that assignments will be deferred only in the case of documented illness, bereavement, or varsity team travel. Assignments will not be rescheduled due to travel and vacation plans, work obligations, or other scheduling conflicts.

### **Learning Technologies Requirements**

This is an online course. In order to complete online (or blended) courses, University of Calgary students are required to have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security and malware updates, with current antivirus software enabled;
- Broadband internet connection, and a current and updated web browser;

- A webcam (built-in or external);
- A microphone and speaker (built-in or external), or headset with microphone.

Most current laptops will have a built-in webcam, speaker, and microphone. If you need access to other software programs to complete assignments, your instructor will provide relevant information and links.

If you have technical difficulties, contact the university’s IT department. For more information, see <https://www.ucalgary.ca/pubs/calendar/current/student-campus-services-information-technologies-it.html>

Instructors may arrange to record synchronous Zoom class sessions for lesson capture; however, students are not to share recordings with others. Please carefully review the section on Instructor Copyright at the end of this outline.

### Assignments and Evaluation

Weight	Assessed Components	Due
15%	<p><b>Blog or vlog: What you know, what you don’t know, and why you’re taking this course</b></p> <p>In either a 500-word blog or a three-minute vlog, you will reflect on your motivation for taking this course. How do you understand the word “algorithm”? What do you know about algorithms? What do you not know? How do you interact with them today? Where has your information about algorithms come from? What do you want to know by the end of the semester?</p>	September 13 (before class)
15%	<p><b>Information-sharing: Collectively building the case for critical algorithm studies</b></p> <p>You will find and share (via D2L) one article about algorithms in the news. You will write a summary of the article, taking care to explain how a key concept from our learning helps us think critically about the issue at hand. You should also be prepared to talk about your summary in class.<sup>1</sup></p>	September 13 to November 29
15%	<p><b>Final project proposal</b></p> <p>In a one-page summary, you’ll outline your idea for your final project. Describe what you’ll be creating, why it’s appropriate, why the work you’re planning is sufficient to demonstrate your knowledge in an upper-level undergraduate course, and the concepts you might deploy.</p>	November 3

<sup>1</sup> I credit K.L. Costello for conceptualizing this assignment.

40%	<p><b>Final project</b>  You will choose and carry out one of the following assignments:</p> <ul style="list-style-type: none"> <li>• Mock-ups (+ 2-page design memo)</li> <li>• Low-fidelity prototype (+ 2-page design memo)</li> <li>• Art (+ 2-page curatorial statement)</li> <li>• Sound piece (~3 minutes + 2-page artistic statement)</li> <li>• Video essay (~5 minutes)</li> <li>• Photo essay (min. 5 photos + text; see <i>Heliotrope</i> for example)</li> <li>• Podcast (~10 minutes)</li> <li>• Essay (~3,000 words)</li> </ul> <p>Complete instructions for this assignment will be provided in class.</p>	December 1
15%	<p><b>Blog or vlog: What you learned, what you struggled with, and what's next</b>  In either a 500-word blog or a three-minute vlog, you will reflect on your learning in this course. The following questions will guide your reflection:</p> <ul style="list-style-type: none"> <li>• What is the most important concept you learned in COMS 401.71? <sup>2</sup></li> <li>• What did you struggle with?</li> <li>• How will this course change (if at all) your everyday life?</li> </ul>	December 8

**Registrar-scheduled Final Examination: No**

**Note:** You do not have to complete all the assignments and exams in order to receive a passing grade in this course. But, you must complete the final project.

If you miss a required course component, please contact me as soon as possible.

**Submission of Assignments**

Please submit all assignments electronically by uploading them to the designated D2L Dropbox (unless instructed otherwise in the assignment guidelines). Include your name and ID number on all assignments.

It is your responsibility to keep a copy of each submitted assignment and to ensure that you submit the proper version (particularly in courses requiring electronic submission). Private information related to individual students is treated with the utmost regard by University of Calgary faculty. Student assignments will be accessible only by the authorized course faculty, and personal information is collected in accordance with the ***Freedom of Information and Protection of Privacy (FOIP) Act***. Please note that

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<sup>2</sup> I credit Maria Victoria Guglietti for conceptualizing this assignment.

instructors may use audio or video recorded for lesson capture, assessment of student learning, and self-assessment of teaching practices.

### **Policy for Late Assignments**

For late assignments, one-third of a letter grade (A- becomes B+, B+ becomes B, etc.) will be subtracted from the assignment for each 24-hour period. After one calendar week, the grade will be an automatic zero (unless accompanied by appropriate documentation).

### **Student Accommodations**

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services (SAS); SAS will process the request and issue letters of accommodation to instructors. For information on support services and accommodations for students with disabilities, visit [www.ucalgary.ca/access/](http://www.ucalgary.ca/access/). Students who require an accommodation based on a protected ground other than disability should communicate this need in writing to their instructor. The full policy on Student Accommodations is available at <http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf>.

Students seeking accommodation for transient illnesses (e.g., the flu) or another legitimate reason should contact their instructors. Whenever possible, students should provide supporting documentation to support their request; however, instructors may not require that a medical note be presented. For the policy on supporting documentation the use of a statutory declaration, see Section M.1 of the *University Calendar*.

<https://www.ucalgary.ca/pubs/calendar/current/m-1.html>. Also see FAQs for Students: <https://www.ucalgary.ca/registrar/registration/appeals/student-faq>

### **Expectations for Writing**

Department policy directs that all written assignments and, to a lesser extent, written exam responses be assessed at least partly on writing skills. Writing skills include not only surface correctness (grammar, punctuation, sentence structure, etc.) but also general clarity and organization and proper documentation of research sources. For further information, please refer to the *University of Calgary Calendar* section on writing across the curriculum: <http://www.ucalgary.ca/pubs/calendar/current/e-2.html>

This said, please note that I am committed to pursuing what Dr. April Baker-Bell calls linguistic justice. I recognize that “standard English” systematically marginalizes various communities, and in this class we will talk about alternatives.

### **Grading & Department of Communication, Media and Film Grade Scale**

The following table outlines the grade scale percentage equivalents used in the Department of Communication, Media and Film. Final grades are reported as letter grades. For components graded using percentages or numerical scores, those values will be used directly in calculating the final course grade, while for components graded using letter grades, the letter grades will be converted to the midpoint values listed in the final column of the table below in calculating the final course grade.

In this course, raw percentage grades will be used for all assignments.

Grade Point Value	Description	Grade	Dept of CMF grade scale equivalents*	Letter grade % equivalent for calculations*
4.00	Outstanding performance	A+	96 - 100%	98.0%
4.00	Excellent performance	A	90 - 95.99%	93.0%
3.70	Approaching excellent performance	A -	85 - 89.99%	87.5%
3.30	Exceeding good performance	B+	80 - 84.99%	82.5%
3.00	Good performance	B	75 - 79.99%	77.5%
2.70	Approaching good performance	B-	70 - 74.99%	72.5%
2.30	Exceeding satisfactory performance	C+	65 - 69.99%	67.5%
2.00	Satisfactory performance	C	60 - 64.99%	62.5%
1.70	Approaching satisfactory performance	C-	55 - 59.99%	57.5%
1.30	Marginal pass. Insufficient preparation for subsequent courses in the same subject	D+	53 - 54.99%	54.0%
1.00	Minimal pass. Insufficient preparation for subsequent courses in the same subject	D	50 - 52.99%	51.5%
0.00	Failure. Did not meet course requirements.	F	0 - 49.99%	0%

\* Column 4: If percentages are used to calculate final grades, then grades falling within these ranges will be translated to the corresponding letter grades. Column 5: These percentage equivalents will be used for calculating final grades unless an alternative method of final grade calculation is outlined above.

### Plagiarism

Using any source whatsoever without clearly documenting it is a serious academic offense. Consequences include failure on the assignment, failure in the course and possibly suspension or expulsion from the university. These requirements apply to all assignments and sources, including those in non-traditional formats such as Web pages or visual media.

You must document not only direct quotations but also paraphrases and ideas where they appear in your text. A reference list at the end is insufficient by itself. **In-text citations must be provided, and readers must be able to tell exactly where your words and ideas end and other people's words and ideas begin.** Wording taken directly from a source must be enclosed within quotation marks (or, for long quotations, presented in the format prescribed by the documentation style you are using).

Paraphrased information must not follow the original wording and sentence structure with only slight word substitutions here and there.

For information on citation and documentation styles (MLA, APA, Chicago, IEEE, etc.), visit the Student Success Centre resource links at <https://ucalgary.ca/student-services/student-success/writing-support> or the Purdue Online Writing Lab (OWL) Research and Citation Resources at [https://owl.purdue.edu/owl/research\\_and\\_citation/resources.html](https://owl.purdue.edu/owl/research_and_citation/resources.html)

If you need help with your writing or have questions about citing sources, please consult your instructor or visit the Student Success Centre, 3<sup>rd</sup> floor, Taylor Family Digital Library. To book an appointment, go to [https://ucalgary.ca/student-services/student-success?utm\\_source=ssc&utm\\_medium=redirect&utm\\_campaign=redirect](https://ucalgary.ca/student-services/student-success?utm_source=ssc&utm_medium=redirect&utm_campaign=redirect)

### **Instructor Intellectual Property & Copyright Legislation**

Course materials created by the instructor (including course outlines, presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed or copied without the explicit consent of the instructor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the same course section and term may be allowed under fair dealing. Check with the instructor if you have any questions about sharing materials with classmates.

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright ([www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf](http://www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf)) and requirements of the copyright act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>) to ensure they are aware of the consequences of unauthorized sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

### **Academic Misconduct**

For information on academic misconduct and its consequences, please see the *University of Calgary Calendar* at <http://www.ucalgary.ca/pubs/calendar/current/k.html>

### **Research Ethics**

Whenever you perform research with human participants, including surveys, interviews, or observations as part of your university studies, you are responsible for obtaining research ethics approval and for following university research ethics guidelines. In some cases, your instructors may apply for course-based research ethics approval for certain assignments, and in those cases, they must review and approve your research plans and supervise your research. For more information about your research ethics responsibilities, please see <https://arts.ucalgary.ca/research/arts-researchers/resources-researchers-and-instructors/ethics>

### **Deferrals of Course Work and Requests for Reappraisal**

For university regulations and procedures related to deferrals of exams and course work, requests for reappraisals, and other matters, please see the relevant sections in

the *University Calendar*: <https://www.ucalgary.ca/pubs/calendar/current/academic-regs.html>

### **Student Support Services and Resources**

Please visit <https://www.ucalgary.ca/registrar/registration/course-outlines> for information about student support services and resources, including Wellness and Mental Health Resources, Student Success programs and services, the Student Ombuds Office, the Student Union, and Safewalk.

For resources on D2L, visit <http://elearn.ucalgary.ca/desire2learn/home/students>. IT support is available at [itsupport@ucalgary.ca](mailto:itsupport@ucalgary.ca) or by calling 403-220.5555.

### **Schedule of Lecture Topics and Readings**

Students will find the weekly schedule of readings posted on D2L. A tentative schedule, subject to change, is included on the following pages.



## Weekly topics and readings

DATE	TOPICS	READINGS
Sep. 8	Why does this course matter?  How do I succeed in this course?	Connolly, R. (2020). Why computing belongs in the social sciences. <i>Communications of the ACM</i> , 63(8), 54-59.  Please carefully read through the syllabus before class.
Sep. 13	What is an algorithm?  What is algorithmic culture?  Why is algorithmic culture so seductive?	Gillespie, T. (2016). Algorithm. In Peters, B. (Ed.), <i>Digital keywords: A vocabulary of information society and culture</i> . Princeton University Press.  Wangsness, T. and J. Franklin. (1966). "Algorithm" and "formula." <i>Communications of the ACM</i> 9(4), 243.
Sep. 15	What are “we” trying to achieve?	Hallinan, B. & Striphas, T. (2014). Recommended for you: The Netflix prize and the production of algorithmic culture. <i>New Media &amp; Society</i> , 18(1), 117-137.  Striphas, T. (2015). Algorithmic culture. <i>European Journal of Cultural Studies</i> , 18(4-5), 395-412.
Sep. 20		Couldry, N. & Mejias, U.A. (2019). Data colonialism: Rethinking big data’s relation to the contemporary subject. <i>Television &amp; New Media</i> , 20(4), 336-349.  Zuboff, S. (2015). Bit other: Surveillance capitalism and the prospects of an information civilization. <i>Journal of Information Technology</i> , 30(1), 75-89.
Sep. 22	What are the problems with algorithmic culture?	Mager, A. (2012). Algorithmic ideology. <i>Information, Communication &amp; Society</i> , 15(5), 769-787.  <i>The Social Dilemma</i> (film)
Sep. 27		Noble, S. (2018). <i>Algorithms of oppression: How search engines reinforce racism</i> . NYU Press. (Excerpt)

Sep. 29		Eubanks, V. (2018). <i>Automating inequality: How high-tech tools profile, police, and punish the poor</i> . St. Martin's Press. (Excerpt)
Oct. 4		Mullaney, T.S., Peters, B., Hicks, M., & Philip, K. (2021). <i>Your computer is on fire</i> . MIT Press. (Excerpts)
Oct. 6		Dyal-Chand, R. (2021). Autocorrecting for whiteness. <i>Boston University Law Review</i> , 101(1), 191-286.  Kaplan, F. (2014). Linguistic capitalism and algorithmic mediation. <i>Representations</i> , 127(1), 57-63.  Thornton, P. (2018). A critique of linguistic capitalism: Provocation/intervention. <i>GeoHumanities</i> , 4(2), 417-437.
Oct. 11	Thanksgiving Monday – No class	
Oct. 13	What are the problems with algorithmic culture? (continued from Oct. 6)	Bender, E.M., Gebru, T. McMillan-Major, A., & Shmitchell, S. (2021). On the dangers of stochastic parrots: Can language models be too big. In Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency, Association for Computing Machinery, 610-623.  Hogan, M. (2015). Data flows and water woes: The Utah Data Center. <i>Big Data &amp; Society</i> , 2(2).
Oct. 18	How can we respond? How can we resist?	D'Ignazio, C. & Klein, L. (2020). <i>Data feminism</i> . MIT Press. (Excerpts)
Oct. 20		<i>Coded Bias</i> (film)  Algorithmic Justice League (website)
Oct. 25		Costanza-Chock, S. (2020). <i>Design justice: Community-led practices to build the world we need</i> . MIT Press.
Oct. 27	Pitch prep	
Nov. 1	Pitch meetings (no class)	

Nov. 3	Pitch meetings (no class)	
Nov. 8	Term break – No class	
Nov. 10	Term break – No class	
Nov. 15	How can we respond? How can we resist (continued from Oct. 25)	We'll look at a number of artistic installations and interventions, including work from Alberta University of the Arts' recent symposium, "Art and/as Algorithmic Culture" as well as Creative Informatics in Edinburgh.
Nov. 17	Final project workshop	
Nov. 22	Reflecting on the "algorithmic self"	Pasquale, F. (2015). The algorithmic self. <i>The Hedgehog Review</i> , 17(1).
Nov. 24		Rob Horning's "I write the songs" and other essays from <i>Real Life</i>
Nov. 29	Final project workshop	
Dec. 1	Final projects due Casual presentations	
Dec. 6	Casual presentations	
Dec. 8	Casual presentations Final blog/vlog due.	