

WAYS 103

Talking about Diversity, Equity and Inclusion Seminar: Algorithms of Oppression

Instructor: Dr. Laura Grabowski (she/her; please address me as “Dr.” or “Professor” Grabowski)

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Office Hours: MWF 11:00-11:45 AM; MW 1:00-1:45 PM; other times available by appointment. I have an “open door” policy: If I am in my office and the door is open, I am available to talk to students.

Class Meeting Information: MWF 10:00 AM – 11:00 AM, Dunn 202

Textbook: O’Neil. C. (2017). *Weapons of Math Destruction*, New York: Crown Publishing.

This course fulfills the WAYS 103 requirement of the Potsdam Pathways program.

WAYS 103 Overview

WAYS 103 exposes students to concepts necessary to live, work and create in the diverse populations and social identities that characterize the U.S., including but not limited to: race, ethnicity, culture, sexual orientation, disability status, socioeconomic status, religion, gender, gender identity and expression, and age. In doing so, students will explore personal and societal assumptions about differences, and examine systemic cultural, political, and economic imbalances. This course encourages civil and respectful discourse (conversations, dialogue, debates, presentations) about difficult topics and charged issues.

Algorithms of Oppression

Google Photograph automatically classified a portrait of two African Americans as "Gorillas". Was this grossly unacceptable result a bug or a feature of the Artificial Intelligence (AI)? How did a major corporation release such a flawed algorithm to the public and what steps should they have taken to avoid this? What other algorithms are doing the same – or even worse – behind closed doors and inside the black boxes of “machine learning”? During this course, we will explore these issues and expose the biases and discrimination that are inherent in many AI systems.

Student Learning Outcomes for WAYS 103

After completion of this course, students will be able to:

1. Describe and explain systemic cultural, political and/or economic imbalances.
2. Describe and explain historical and/or contemporary challenges faced by underrepresented population(s) traditionally marginalized or oppressed in the U.S. and analyze their responses to them
3. Demonstrate an appreciation of the responses to the challenges faced by marginalized populations in the USA.
4. Identify and evaluate personal and societal assumptions about differences.
5. Use spoken communication to demonstrate understanding of differences and sensitivities for the diversity topics explored in the course that
 - a. is supported by credible, relevant and properly cited evidence;
 - b. is designed for a specific audience and purpose;
 - c. demonstrates consistent organizational patterns;
 - d. identifies persuasive techniques; and
 - e. employs appropriate and persuasive delivery techniques.

In addition to the SLO’s listed above, after completion of this course, students will be able to:

1. Define algorithm and artificial intelligence (AI).
2. Describe the prevalence of AI systems in everyday life.
3. Discuss risks associated with technology use and AI systems.
4. Discuss issues with AI that lead to unexpected results from the systems.

5. Describe how bias in algorithmic decision making perpetuates and deepens social inequality.

Required Readings:

O'Neil, C. (2017). *Weapons of Math Destruction*. New York: Crown Publishing.

Additional readings and videos posted on Brightspace, as announced.

Grading

Distribution of grade:

Common Assignment 1	10%
Common Assignment 2	15%
Participation	15%
Section Content Assignment 1	10%
Section Section Content Assignment 2	15%
Written Reflections	20%
• <i>Reading Journal, 10%</i>	
• <i>Guided Reflections, 10%</i>	
Final Exam	15%
• <i>Written take-home final, 7.5%</i>	
• <i>Final discussion, 7.5%</i>	

Grading scale:

4.0: 95-100%	3.7: 90-94%	3.3: 85-89%	3.0: 80-84%
2.7: 77-79%	2.3: 73-76%	2.0: 70-72%	1.7: 67-69%
1.3: 63-66%	1.0: 60-62%	0.0: 59% and below	

Common Assignments:

Common Assignment #1:

This first assignment is designed to give students the opportunity early in the semester (by Week 3) to unpack DEI concepts as delivered via a speech event. Students will watch a TED Talk (chosen by WAYS 103 faculty) and then process that with the WAYS 103 faculty.

WAYS 103 SLOs addressed by Common Assignment #1:

- SLO 1: Describe and explain systemic cultural, political and/or economic imbalances.
- SLO 2: Describe and explain historical and/or contemporary challenges faced by underrepresented population(s) traditionally marginalized or oppressed in the U.S.
- SLO 3: Demonstrate an appreciation of the responses to the challenges faced by marginalized populations in the USA.
- SLO 4: Identify and evaluate personal and societal assumptions about differences

Common Assignment #2:

The purpose of Common Assignment #2 is for students to explore personal and societal assumptions about differences. This will be accomplished by having students participate in an event, presentation, workshop, or any other activity as decided by the professor. For example, faculty could organize that students attend a session at Days of Reflection.

Students will then engage in an oral communication activity designed to process that activity with a focus on the SLO's below:

WAYS 103 SLOs addressed by Common Assignment #2:

SLO 4: Identify and evaluate personal and societal assumptions about differences.

SLO 5: Use spoken communication to demonstrate understanding of differences and sensitivities for the diversity topics explored in the course that

- a. is supported by credible, relevant and properly cited evidence;
- b. is designed for a specific audience and purpose;
- c. demonstrates consistent organizational patterns;
- d. identifies persuasive techniques; and
- e. employs appropriate and persuasive delivery techniques.

Content Assignments:

Content Assignment #1: Presentation – My Technology Risks

The purpose of this assignment is for students to explore their own everyday uses of technology and the risks they are taking on because of their technology use. Using Guided Reflection 2 as a starting place, students will prepare a timed, 4-minute presentation on the topic of the risks that their everyday technology use may expose them to.

Content SLOs addressed by Content Assignment #1:

SLO 2: Describe the prevalence of AI systems in everyday life.

SLO 3: Discuss risks associated with technology use and AI systems.

Content Assignment #2: Presentation – Who Thought This Was a Good Idea?

The purpose of this assignment is for students to synthesize topics of diversity, equity, and inclusion and algorithmic bias in a 5-minute presentation. Drawing from all the readings and discussions, students will choose a particular AI topic area that we have addressed in the semester. Students will develop and give a presentation that discusses an AI system related to their chosen topic area, focusing on problems of diversity, discrimination, injustice, *etc.*, that the AI manifests or reinforces.

WAYS 103 SLOs addressed by Content Assignment #2:

SLO 1: Describe and explain systemic cultural, political and/or economic imbalances.

SLO 2: Describe and explain historical and/or contemporary challenges faced by underrepresented population(s) traditionally marginalized or oppressed in the U.S. and analyze their responses to them

SLO 4: Identify and evaluate personal and societal assumptions about differences.

SLO 5: Use spoken communication to demonstrate understanding of differences and sensitivities for the diversity topics explored in the course that

- a. is supported by credible, relevant and properly cited evidence;
- b. is designed for a specific audience and purpose;
- c. demonstrates consistent organizational patterns;

Content SLOs addressed by Content Assignment #2:

SLO 1: Define algorithm and artificial intelligence (AI).

SLO 2: Describe the prevalence of AI systems in everyday life.

SLO 4: Discuss issues with AI that lead to unexpected results from the systems.

SLO 5: Describe how bias in algorithmic decision making perpetuates and deepens social inequality.

Written Reflections

- **Guided Reflections** are short (500-word) written responses to specific questions/prompts given by the instructor. These reflections allow students to synthesize and react to course topics in a focused way.
- **Reading Journal.** Students will write and turn in their reactions to assigned readings each week, including assignments from the course textbook and additional readings as posted on Brightspace. The weekly reading journal assignment will be 300-500 words long and include the following:
 - 1-paragraph summary of each assigned reading,
 - Reflections on the reading that include your reactions to the content of the reading and the connection to systemic bias, injustice, oppression, and/or individual and societal assumptions about differences.

WAYS 103 SLOs addressed by Written Reflections:

SLO 1: Describe and explain systemic cultural, political and/or economic imbalances.

SLO 2: Describe and explain historical and/or contemporary challenges faced by underrepresented population(s) traditionally marginalized or oppressed in the U.S. and analyze their responses to them

SLO 4: Identify and evaluate personal and societal assumptions about differences.

Content SLOs addressed by Written Reflections:

SLO 1: Define algorithm and artificial intelligence (AI).

SLO 2: Describe the prevalence of AI systems in everyday life.

SLO 3: Discuss risks associated with technology use and AI systems.

SLO 4: Discuss issues with AI that lead to unexpected results from the systems.

SLO 5: Describe how bias in algorithmic decision making perpetuates and deepens social inequality.

Final Exam

The final exam for the course will have two parts: an essay that discusses what the student biggest “takeaways” were from the class and a small group discussion (during the final exam time) of the essays. Both parts of the exam are required. Missing either part will result in a grade of 0 for that part of the exam.

Participation

This is a discussion-based course. Regular engagement and participation are crucial to student success and learning in this course. Students are expected to attend class meetings (please see Attendance Policy, below) and complete all assignments. In addition, because the class will make heavy use of discussions, participation will be assessed each week as follows on a scale from 0-2 for each class meeting:

- 2 = Participated actively in discussion with relevant contributions, asked and responded to questions.
- 1 = Attended class but spoke rarely or did not speak OR excused absence.
- 0 = Not in class.

Homework

Homework is out-of-class work that is assigned but not explicitly graded. Completion of the homework will count toward participation. Homework is often assigned as preparation for in-class activities.

Course Policies

Below are the policies for the course assumptions regarding late work, extra credit, attendance, plagiarism, and disruptive behavior.

1. Late work: I strongly encourage you to turn in all work by the published deadline. I will make the following allowance for turning in late work.
 - a. You will be permitted to turn in 2 assignments up to 72 hours after the deadline with no penalty. In order to use one of your free late assignments, you must email within the 72 hours to notify me that you are turning the assignment in late. Failure to notify me (or turn the assignment in within 72 hours) will result in a 0 score on the assignment.
 - b. No other late work will be accepted except in emergency circumstances.
2. Attendance: In-person attendance in class is mandatory. Knowing that things sometime happen to prevent your attending class, I distinguish between excused and unexcused absences. You should miss class in circumstances beyond your control (e.g., illness or other unforeseen events). To request an excused absence, you must contact me through email before class on the day of the absence with a brief explanation of the reason for your absence. Excused absences excuse you only for attendance; they do not excuse you from any graded work that is due that day. Your participation grade for the day will be recorded as detailed earlier in this syllabus. Total absences in excess of 2 class weeks are cause for concern, and I will require that you meet with me to discuss any issues that are preventing your full participation in the class. Please note that I will not “zoom you in” for class.
3. Plagiarism: Plagiarism occurs when presenting as one's own the distinctive ideas, facts or words of another (in part or in whole) without appropriate acknowledgement of the source. Issues of plagiarism apply to any type of work including, but not limited to exams, papers, any writing or printed text, computer programs, websites, art, music, photography or video. This includes turning in borrowed or bought research papers as one's own. Students who violate this policy may be referred to Student Conduct. Please see the [Student Code of Conduct](#) for more information about this policy.
4. Extra credit: There is no opportunity for students to earn extra credit for absences, missed assignments/exams, or poor grades.
5. Disruptive students: Intolerance of any kind will not be allowed in this classroom and has no place in education. Anyone who disrupts the classroom will be asked to leave for the day; repeated disruptions will result in dismissal from the course. Disruptions may include, but are not limited to, violent or threatening actions/language, interrupting/speaking over other people, excessive use of foul/abusive/derogatory language, repeated getting up/leaving/returning. My office/office hours are considered part of the classroom space for this policy.

Tentative Course Schedule

Week starting	Week	Topics/Activities	Textbook Reading*	Assignment due
Aug 29	1	<ul style="list-style-type: none"> Syllabus review Ground rules for discussion 	Assigned online readings and videos	<ul style="list-style-type: none"> Guided Reflection 1: How can technology be biased?
Sep 5	2	<ul style="list-style-type: none"> Identity and differences 	WMD, Introduction and Ch. 1	<ul style="list-style-type: none"> Identity exercise Reading Journal (Intro-Ch. 1)
Sep 12	3	<ul style="list-style-type: none"> Computers, technology, and risk Common Assignment 1 – TED Talk (details TBA) 	Assigned online readings and videos	<ul style="list-style-type: none"> Common Assignment 1 Written Response
Sep 19	4	<ul style="list-style-type: none"> Presentational Speaking Common Assignment 1 – Reaction presentation and discussion 	WMD, Ch. 2	<ul style="list-style-type: none"> Common Assignment 1 Reaction presentation (in class) RJ (Ch. 2)
Sep 26	5	<ul style="list-style-type: none"> What are Algorithms and Artificial Intelligence (AI)? Computer models and AI 	WMD, Ch. 3	<ul style="list-style-type: none"> GR 2: Technology in My Life RJ (Ch. 3)
Oct 3	6	<ul style="list-style-type: none"> AI and college Social media, misinformation, and disinformation 	WMD, Ch. 4	<ul style="list-style-type: none"> RJ (Ch. 4)
Oct 10	7	<ul style="list-style-type: none"> <i>Fall Recess; No classes Mon-Tue Oct 11-12</i> Content Assignment 1 – Presentation 	TBD	<ul style="list-style-type: none"> Presentations daily summaries Slides for Content Assignment 1
Oct 17	8	<ul style="list-style-type: none"> Content Assignment 1 – Presentation (continued) AI in justice: Face recognition, law enforcement, and you 	WMD, Ch. 5	<ul style="list-style-type: none"> Presentations daily summaries RJ (Ch. 5)
Oct 24	9	<ul style="list-style-type: none"> AI, HR, and your future jobs AI, finances, and insurance 	WMD, Ch. 6	<ul style="list-style-type: none"> RJ (Ch. 6) GR 3 (due Fri)
Oct 31	10	<ul style="list-style-type: none"> Common Assignment 2 (details coming soon) 	WMD, Ch. 7	<ul style="list-style-type: none"> Common Assignment 2 worksheets RJ (Ch. 7)
Nov 7	11	<ul style="list-style-type: none"> Common Assignment 2 (continued) 	WMD, Ch. 8	<ul style="list-style-type: none"> Common Assignment 2 Reflection
Nov 15	12	<ul style="list-style-type: none"> Robot overlords: AI enforcers in civic life 	WMD, Ch. 9	<ul style="list-style-type: none"> GR 4
Nov 14	12	<ul style="list-style-type: none"> Presentation workshop 	TBD	<ul style="list-style-type: none"> RJ (Ch.8-9)
Nov 21	13	<ul style="list-style-type: none"> TBD <i>Thanksgiving Recess: No classes Wed-Fri Nov 23-25</i> 	TBD	TBD
Nov 28	14	<ul style="list-style-type: none"> Section Content Assignment 2 -- Presentation 	WMD, Ch. 10	<ul style="list-style-type: none"> Section Content Assignment 2 Slides Presentations daily summaries RJ (Ch. 10)
Dec 5	15	<ul style="list-style-type: none"> Section Content Assignment 2 – Presentation Wrap-up 	WMD, Conclusion and Afterword	<ul style="list-style-type: none"> Presentations daily summaries RJ (Concl. - Afterword)
Dec 12		Final Exam – Wed Dec 14, 10:15 AM – 12:15 PM Final essay due online at the beginning of exam time; group discussion during exam time		

KEY:

WMD: The course textbook. O'Neil, *Weapons of Math Destruction*.

RJ: Reading Journal

GR: Guided Reflection

* Additional readings will be assigned. Please check the Brightspace course for additional reading.