DPR 390: Death, Destruction, and Data

Dr. Miles D. Williams

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Course Description

Why, in the course of politics, do we choose violence over peace? The causes of deadly and destructive conflict can seem legion. No two history books or op-eds will tell quite the same story about the roots of this or that war, and the narratives given can involve more moving pieces than a grandfather clock. Yet, however rich the historical roots of a given conflict, by focusing on just one case it's all too easy to miss the forest for the trees. Many supposed causes of conflict—from ideological differences to political dissent driven by poverty and unemployment—sound compelling. But once we consider that many countries and groups in society have sharp ideological or material differences yet are able to negotiate peacefully and compromise, the "obvious" suspects lose their forcefulness. In this class, we'll take a different approach to studying conflict; not one that looks for what is present that could cause war, but instead one that looks to what is absent that could prevent it. Along the way, you'll be introduced to important datasets for studying conflict and tools for drawing insights from this data to help identify when the key factors that can help prevent war are present or absent.

By the time you complete this course, you should have an understanding of:

- 5 key reasons for war;
- 4 key paths to peace;
- How to use data to evaluate claims about when conditions are ripe for war.

Class Schedule[1]

Legend: ■ Class Day ■ Breaks ■ Finals ☐ DC Due ☐ Reflection Due ☐ Final Proj.

Notable dates: MLK (22 Jan.), Spring Break (11-15 Mar.), MPSA (04-05 Apr.), Final Day of Instruction (29 Apr.)

Getting Started

Week 01, 01/15 - 01/19: Welcome!

Schedule

- Day 1: Course introduction and syllabus.
- Day 2: Read "Introduction" of *Why We Fight: The Roots of War and the Paths to Peace* by Christopher Blattman (I'll refer to this as WWW from here on).
- Day 3: Read WWW, "Chapter 1: Why We Don't Fight"

Due

Reflection due Fri.

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[1]As the instructor, I retain the right to amend this schedule if the need arises.

Week 02, 01/22 - 01/26: Review/Intro of R + RStudio

Schedule   *Due*
- Day 1: NO CLASS (MLK observed).   Reflection due Fri.
- Day 2: Review of R + RStudio. If you have zero programming experience, I highly recommend *Hands on Programming with R* (It's free!).
- Day 3: Review of Data Wrangling + Visualization with 'tidyverse'. Additional resources: "Chapter 1: Data Visualization" and "Chapter 3: Data Transformation" in *R for Data Science*.

Week 03, 01/29 - 02/02: Working with Conflict Data in R[2]

Schedule   *Due*
- Day 1: Intro to 'peacesciencer'.   Reflection due Fri.
- Day 2: Cross-walking and merging new data.
- Day 3: Data and false causes of war.

Week 04, 02/05 - 02/09: Baby Noah Arrived!

Class Postponed

Five Reasons for War

Week 05, 02/12 - 02/16: Unchecked Interests

Schedule   *Due*
- Day 1: Read WWW "Chapter 2: Unchecked Interests."   Reflection due Fri.
- Day 2: Using data to identify unchecked interests.
- Day 3: Data workshop.

Week 06, 02/19 - 02/23: Intangible Incentives

Schedule   *Due*
- Day 1: Read WWW "Chapter 3: Intangible Incentives."   DC1 due Thu.
                                                           Reflection due Fri.
- Day 2: Using data to identify intangible incentives.
- Day 3: Data workshop.

Week 07, 02/26 - 03/01: Uncertainty

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[2]We may have a flipped classroom this week since my partner and I have our baby due 31 Jan.

Schedule	*Due*
• Day 1: Read WWW "Chapter 4: Uncertainty."	DC2 due Mon.
• Day 2: Using data to identify uncertainty.	Reflection due Fri.
• Day 3: Data workshop.	

Week 08, 03/04 - 03/08: Commitment Problems

Schedule	*Due*
• Day 1: Read WWW "Chapter 5: Commitment Problems."	DC3 due Mon.
• Day 2: Using data to identify commitment problems.	Reflection due Fri.
• Day 3: Data workshop.	

Week 09, 03/11 - 03/15: Spring Break

Schedule	*Due*
NO CLASS!	NOTHING!

Week 10, 03/18 - 03/22: Misperceptions

Schedule	*Due*
• Day 1: Read WWW "Chapter 6: Misperceptions."	DC4 due Mon.
• Day 2: Using data to identify misperceptions.	Reflection due Fri.
• Day 3: Data workshop.	

Paths to Peace

Week 11, 03/25 - 03/29: Interdependence

Schedule	*Due*
• Day 1: Read WWW "Chapter 7: Interdependence."	DC5 due Mon.
• Day 2: Using data to identify interdependence.	Reflection due Fri.
• Day 3: Data workshop.	

Week 12, 04/01 - 04/05: Checks and Balances

Schedule	*Due*
• Day 1: Read WWW "Chapter 8: Checks and Balances."	DC6 due Mon.
• Day 2: Using data to identify checks and balances.	Reflection due Fri.
• Day 3: NO CLASS (MPSA)	

Week 13, 04/08 - 04/12: Rules and Enforcement

Schedule	*Due*
• Day 1: Read WWW "Chapter 9: Rules and Enforcement."	DC7 due Mon.
• Day 2: Using data to identify rules and enforcement."	Reflection due Fri.
• Day 3: Data workshop.	

Week 14, 04/15 - 04/19: Interventions

Schedule	*Due*
• Day 1: Read WWW "Chapter 10: Interventions."	DC8 due Mon.
• Day 2: Using data to identify interventions.	Reflection due Fri.
• Day 3: Data workshop.	

Week 15, 04/22 - 04/26: What Can We Do?

Schedule	*Due*
• Day 1: Read WWW "Chapter 11: Wayward Paths to Peace" + "Chapter 12: The Peacemeal Engineer."	DC9 due Mon.
• Day 2: Final project workshop.	
• Day 3: Presentations.	

Final Projects

Week 16, 04/29 - 05/03: Last Week of Instruction

Schedule	*Due*
• Day 1: Course evals and final discussion.	Final project due by Thursday, May 2, 8:30 pm.
• Day 2 + 3: NO CLASS (Finals start).	

Course Objectives

- Understand the 5 key reasons for war.
- Understand the 4 key paths to peace.
- Know how to use data to evaluate claims about when conditions are ripe for war.
- Get experience making theory- and data-informed claims about why a given conflict occured.

Course Outline

To meet these objectives, the course is structured in four parts:

Getting Started   We'll preview what's to come in the course and spend some time getting (re)acquainted with R and RStudio. We'll also cover key datasets that we'll use in the course to evaluate claims about the reasons for war and paths to peace.

Five Reasons for War   In this part of the course, we'll do a deep dive into five reasons for war. Along the way, you'll engage in hands-on data challenges where you practice evaluating the five reasons for war using data. In addition to learning how to query and merge the right datasets, you'll get practice producing data visualizations and making statistical inferences.

Four Paths to Peace   Next, we'll do a deep dive into four paths to peace. Like before, you'll engage in hands-on data challenges, produce data visualizations, and make statistical inferences.

Final Project   The course will culminate in a final project where you apply the inferences you've made through-out the course to write a report about a particular conflict of interest to you.

Analysis Software

Students will use R and Posit Workbench (RStudio), which are free and open source. We will use the Posit Workbench version available through a web browser installed on a Denison server: `r.denison.edu`. This can be accessed on campus on any computer or through a VPN off campus. To use the VPN follow the instructions at one of the help pages below:

1. For Windows Users
2. For Mac Users

Many of the necessary R packages for the course are already installed in the server version. While using the **Denison server version is highly recommended**, you are also welcome to download and install local versions of R and Posit Workbench/RStudio on your laptop. Follow this guide.

Required Readings and Recommended References

Our primary text will be:

Blattman, Christopher. 2022. *Why We Fight: The Roots of War and the Paths to Peace*. New York: Viking.

I've also produced a comprehensive set of lecture notes that you can treat like an additional textbook in this course:

Studying Why We Fight with R.

We'll work with R and RStudio in this course. There are many free and helpful resources online, but if you're looking for some authoritative references, I highly recommend:

Wickham, Hadley, Mine Çetinkaya-Rundel, and Garrett Grolemund. *R for Data Science (2e)*.

Grolemund, Garrett. *Hands-on Programming with R*.

Resources

The Instructor (that's me!)

During my office hours, my door is always open! If you have any questions or concerns about the course, just drop by my office Monday or Wednesday between 3:00-4:30 pm. No appointment necessary. If those hours don't work for you, we can work out a different time to meet.

You can also email me at williamsmd@denison.edu any time. I'll try to respond as quickly as possible, but if you email me after 5 pm, you may not get a response from me until the next workday. By the end of January, I should have a new small human in my home to look after, too, so you may experience a 24 turnaround on emails sometimes.

Teaching Assistant

DPR hires teaching assistants each semester to provide you with extra help and tutoring. Contact information, hours, and locations for our TAs are included below. Our TAs are a great resource if you're having trouble with your code or are stuck on a problem.

Brennan Kelley

- **email**: kelley_b1@denison.edu
- **hours**: Thursdays 3:00-4:30 pm; Fridays, 2:30-4:30 pm
- **location**: Tables overlooking Atrium in the library

Sury Agrawal

- **email**: agrawa_s1@denison.edu
- **hours**: Mondays 1:30-4:30 pm; Wednesdays 1:30-4:30 pm
- **location**: Olin 216

Accessibility

Students with a documented disability should complete a Semester Request for Accommodations through the MyAccommodations app on MyDenison. It is the student's responsibility to contact me privately as soon as possible to discuss specific needs and make arrangements well in advance of an evaluation. I rely on the Academic Resource Center (ARC) located in 020 Higley Hall, to verify the need for reasonable accommodations based on the documentation on file in that office. Reasonable accommodations cannot be applied retroactively and therefore ideally should be enacted early in the semester as they are not automatically carried forward from a previous term and must be requested every semester.

Writing Center

Staffed by student Writing Consultants, the Writing Center is a free resource available to all Denison students. Writing Consultants from a range of majors work with writers one-on-one in all phases of the writing process, including (but not limited to): deciphering assignments, discussing ideas, developing an argument, integrating research and sources, working with faculty feedback, and/or polishing a draft. In addition, Consultants are happy to help with all types of writing, from lab reports, research papers, and informal writing assignments to cover letters, personal statements, and other application materials. The Center welcomes writers from all backgrounds and levels of college preparation, including multilingual writers. Should a multilingual writer need writing assistance that exceeds the abilities of consultants, the writer can be referred to the Coordinator for Multilingual Learning, Kaly Thayer (thayerk@denison.edu). Writing Center consultations will take place in person in in the Atrium level of the Library; please visit the Writing Center's page (https://my.denison.edu/campus-resources/writing-center) on MyDenison for specific information regarding hours of availability and how to schedule an appointment. The Writing Center strongly recommends signing up for appointments in advance.

Multilingual Support (L2)

Students who use English in addition to other languages are welcome to use the resources available at the Multilingual Learning Office. Kaly Thayer, the Assistant Director of Multilingual Learning, and Anna Adams, the English Language Support Specialist, as well the student consultants who work with them, are trained and experienced in helping students address the different issues that arise when working in more than one language. If English is not your first or only language, please consider utilizing this resource, which is available to ALL Denison students. Ms. Thayer, Ms. Adams, and the student consultants offer a variety of support for L2 students, including consulting with you about your written language (grammar, syntax, word-choices), strategies

to manage your reading assignments, assistance with class conversation and presentations, and help devising ways to develop and effectively use all your skills in English. You can set up an appointment via MyDenison - Campus Resources - Multilingual Learning, or by emailing the Multilingual Learning Office directly at englishhelp@denison.edu.

Reporting Sexual Assault

Essays, journals, and other coursework submitted for this class are generally considered confidential pursuant to the University's student record policies. However, students should be aware that University employees are required by University policy to report allegations of discrimination based on sex, gender, gender identity, gender expression, sexual orientation or pregnancy to the Title IX Coordinator or a Deputy Title IX Coordinator. This includes reporting all incidents of sexual misconduct, sexual assault and suspected abuse/neglect of a minor. Further, employees are to report these incidents that occur on campus and/or that involve students at Denison University whenever the employee becomes aware of a possible incident in the course of their employment, including via coursework or advising conversations. There are others on campus to whom you may speak in confidence, including clergy and medical staff and counselors at the Wellness Center. More information on Title IX and the University's Policy prohibiting sex discrimination, including sexual harassment, sexual misconduct, stalking and retaliation, including support resources, how to report, and prevention and education efforts, can be found at: https://denison.edu/campus/title-ix .

Course Policy

The course policy and requirements are detailed below. It all basically boils down to: (1) show up to class, (2) learn some stuff, and (3) don't cheat or trick me into believing you've accomplished 2.

Grading Policy

Grades at Denison are based on a standard 4.0 scale. You can read more about Denison's grading system here. Generally, a 90 corresponds to an A−, an 80 to a B−, etc.

Grading Scale		
A+: 98%+	A: 92%	A-: 90%
B+: 88%	B: 82%	B-: 80%
C+: 78%	C: 72%	C-: 70%
D+: 68%	D: 62%	D-: 60%
F: below 60		

Attendance and Participation **10%**

   You should show up to class and participate! Missing multiple days of class can leave gaps in your

learning that make doing assignments down the road more difficult. As an incentive to show up (both physically and mentally) to class, 10 percent of your grade will come from attendance and participation. Your first unexcused absence will be a freebie. After that, you'll lose 1/2 of your attendance and participation grade per each of two subsequent unexcused absences. That means after 3 unexcused absences you'll lose your entire grade for attendance and participation. Also, if you just come to class, but don't engage, you'll lose 1/2 of your attendance and participation grade as well. [**Note**: *Participation does not only look like talking in class. If you don't feel comfortable or confident (but I hope you do!) speaking up, we'll do some work in groups as well. If you participate in your group, that counts as participation, too.*]

9 (Team) Data Challenges **45% Total**

Througout the semester, we will have 9 data challenges (DCs). These will be team based (team size TBD) and will deal specifically with one of the five reasons for war or four paths to peace that we discuss in the second and third parts of the course. These will be do the following Monday after they are introduced.
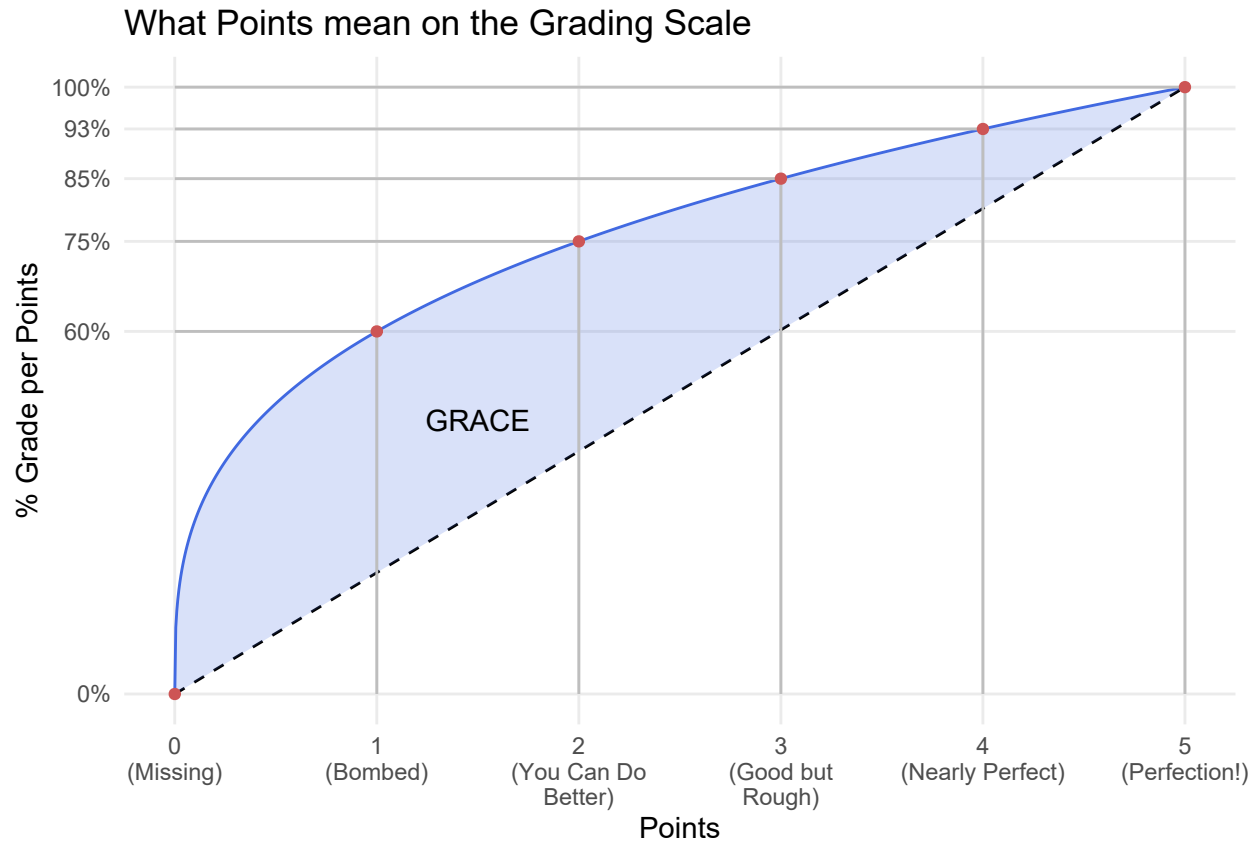
Weekly Reflections **13% Total**

This is a low-stakes weekly assignment due every Friday. It is intended as a regular check-in that lets you reflect on your learning (metacognition) and lets me know how you feel about your progress in the course and whether there's anything I can do if you feel you're falling behind. With each submission, you'll tell me three things: (1) one thing we covered in class that you feel confident in your understanding of, (2) one thing we covered in class that you feel unconfident about, (3) one thing we covered in class that you wish were covered in greater depth. This is not meant to be a lengthy written submission. A simple list with at least one sentence for each point is sufficient (but you can always go into more detail if you like).

Final Project **32% Total**

The course will culminate in a final project where you have the opportunity to show off some of the data skills you've developed throughout the course to bring insight into a case study of your choice. Specifics about the assignment will be made available later in the course.

The following figure provides a summary of my grading strategy and philosophy. For each assignment you submit, I'll evaluate it on a discrete scale from 0 to 5. 5 = "Perfection!" and 0 = "Missing" (e.g., you didn't turn anything in). Your points then get mapped to a percentage point grade for a given assignment according to what I call a "Grace Curve." This means the linkages between my evaluation of your work on the 0-5 scale and your actual grade are not one-to-one. 5 out of 5 = 100% (an "A+"), but 4 out of 5 = 93% (still an "A") and 3 out of 5 = 85% (a "B"), and so on. If you do some simple math, you know that 4 out 5 should actually be 80% and 3 out of 5 should be 60% if I didn't apply the Grace Curve. My grading strategy gives me a simple scale to evaluate your work, but it also ensures that you get some benefit of the doubt. Did you completely bomb an assignment? My instinct is to give you a 1 out of 5, which gives you only 20% for your final grade on said assignment. That seems too harsh. My scale adjusts for my disappointment in the quality of your work and gives you 60% (a "D-")

instead. That's still a poor grade, but not one that would be impossible to recover from.

What Points mean on the Grading Scale

	10% (Attendance and Participation)
	13% (Weekly Reflection)
Tallying Your Grade:	45% (Data Challenges)
	$+32\%$ (Final Project)
	100% (Total Assignments)

E-mail Policy

I have a simple email policy, and it is targeted at achieving one goal: **maximizing your and my work-life balance**. The policy is this:

> I promise a timely response to **relevant** emails I receive between **9:00 AM** and **5:00 PM** Monday to Friday.

You may not think professors have lives, but we in fact do, and I like to live mine outside of normal working hours. I also will have a new small human to take care of this semester, which makes these hours even more

important for me to stick to. That doesn't mean I expect students to abide by chrono-normative standards.[3] But, this does mean that if you email me outside of these windows, I may not respond until the next 9-5 workday.

Make-Up Assigment Policy

There are **NO** make-ups for missed assignments. But, if you anticipate having troubles making a due-date and notify me *in advance*, we can work out a solution.

Second Chances Policy

You have only one chance with your assignments, but only one chance should be necessary. If you have questions or concerns, come visit me during office hours, send me and email, or take advantage of the various resources we have on campus. I and so many others on campus are eager and willing to help if you ask. Take advantage of these opportunities *before* you submit your work. You won't get a second chance after.

Attendance Policy

Attendance is part of your grade (see "Grading Policy"). However, sometimes life happens. There's an emergency, you get sick, you're an athlete and you have to be out of town, etc. Any of these exigencies can be the basis for an excused absence (which means missing class won't count against your final grade). All I ask is that you do me the courtesy of telling me **in advance** of your absence and your justification. After the fact is too late (except in the case of a true and immediate emergency).

Computer-based Excuses

Excuses for late or missed assignments based on CD, flash drive, or hard drive errors are **not acceptable**. If you use your Google Drive, all your work will be backed up and easy to access.

Late Assignments

We have a lot of work to do in this class. So turn in your work when it's due. This is meant to help you. I love to procrastinate just as much as anyone else, but if you procrastinate in this course, you will drown. As an incentive for keeping on top of your assignments, each day your assignment is late and unexcused (including weekends and holidays) you will lose 5 percent from your final grade for that assignment. There will be no exceptions made for work that is submitted only minutes after a deadline. If something is due by midnight on a Friday (12:00 AM), the moment the clock strikes 12:01 AM your assignment is a day late and you will automatically lose 5% from your grade.

The exception to this rule is if a student and I have worked out an arrangement for submitting an assignment at a later date.

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[3] By this, I simply mean classic societal expectations about working vs. leisure hours.

Electronic Submission

You will submit all of your assignments electronically via Canvas.

Academic Dishonesty Policy

Don't cheat. Just don't do it.

It should go without saying, but *plagiarism* is also a form of cheating and it includes:

1. Copying or paraphrasing the ideas of others without citation or attribution.
2. Copying or paraphrasing the ideas of *other students in the class*.

I've had to deal with students plagiarizing before. It's painful for me and it puts a blight on the record of the student. It's not only cheating, it's stealing.

When in doubt about whether something constitutes cheating, consult Denison's Code of Academic Integrity.[4] Be advised that this same Code of Academic Integrity requires that instructors notify the Associate Provost of cases of academic dishonesty. **Any incidence of academic dishonesty will result in failure of the course and referral to the Denison judicial process.**

Academic Dishonesty and Generative AI

Remember the previous section where I said you shouldn't cheat? That also applies to GenAI (Generative Artificial Intelligence) tools like ChatGPT. *But*, there's some nuance to my attitude about GenAI and academic dishonesty. GenAI is a powerful *tool*, and it's a tool that you need to learn to use well because, let's face it, a lot of other people are using it, too. So I want to be very clear that *I am okay if you use GenAI tools to help you with your work (especially coding in R).* I've started using ChatGPT to help me with some aspects of my own research and programming. It would be unfair for me to hold you all to a different standard than I hold myself.

So, here's my policy on using GenAI: You can use it, but I want you to be honest about it, and I DO NOT want you to use it uncritically or unthinkingly. What does this look like? **Do not** copy and paste responses or output from tools like ChatGPT and pass them off as your own. **Do** use ChatGPT if you get stuck and need help (just make sure you tell me about it, and that you add your own thoughts, writing, and ideas into the mix as well).

Ultimately, I hope this policy strikes the right balance between honesty and exploration of the potential uses of GenAI while ensuring your own "sweat equity" (effort) goes into your course work as well. I want you to be honest if and when you use GenAI because I'm genuinely curious about its applications. I'm still learning how to use it, too, and I hope that we all can learn how to use it better *together.* Further, I want you to use it critically and thoughtfully because it doesn't work perfectly. While it's powerful (and shockingly so), it is not all-powerful. You need to put in plenty of your own work as well.

You'll probably see a wide variety of attitudes toward GenAI from different faculty on campus. Some attitudes will differ from mine. As instructors, we're still trying to figure out the best policy. Have patience with us!

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[4]Of course, if you have to ask yourself if something counts as cheating, then it probably is...