

599

DATA-DRIVEN LAW: EMPIRICAL METHODS FOR LEGAL ADVOCATES

AUTUMN

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<b>INSTRUCTOR:</b> David Garavito	<b>SECTION:</b> A
<b>OFFICE:</b> 343	<b>CREDIT HOURS:</b> 4
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<b>E-MAIL:</b> garavito@uw.edu	<b>SCHEDULE:</b> MW 1:30PM - 3:20PM
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Any future changes to this syllabus will be announced in class to avoid confusion.

**Course Description:** Over the past century, the practice of law has increasingly adopted the use of research methods from other fields. The methods associated with social and behavioral research, and the output from such methods, have been particularly relied on when making or supporting legal arguments. In this course, we will take a practical approach to learning statistics and empirical research methods. Using the **free** and powerful R programming language and the R Studio IDE, we will go through the entire research process to provide students with a comprehensive toolset that they can draw on when needed in an increasingly quantitative world.

**Learning Objectives:** By the end of this course, my hope is that you will be able to perform the following tasks:

- **Discern** the importance of testing hypotheses using empirical research methods on the practice of law
- **Recognize** the basic types of experimental designs and statistical analyses needed to test simple hypotheses
- **Understand** the strengths and weaknesses associated with using large public datasets vs. smaller custom studies
- **Compare** and **contrast** the strengths and weaknesses of various types of experimental designs and statistical analyses
- **Evaluate** the output of statistical analyses to accept or reject original hypotheses
- **Acknowledge** the obstacles in using statistical methods to support legal claims

**Grade Composition:**

A student's final grade will consist of the performance on a mid-term examination, a final examination, and the student's participation in class. The breakdown for the final grade is listed below:

- Final examination = 25%
- Mid-term examination = 25%
- Participation (including quizzes & class activities) = 50%

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<sup>1</sup>In addition to these hours, if I am in my office and my door is open (as it usually is), feel free to stop by. You are always welcome.

The mid-term examination will cover the material presented during the first half of the course (mostly underlying theory and important background information); it will be open-note and consist of 25 multiple choice questions. The final examination will be an open-note test consisting of a research-oriented issue spotter.

Note: If you have an ADA accommodation for timed tests, please provide me with the accommodation letter so that accommodation can be programmed accordingly.

### **Letter Grade Distribution:**

For seminar courses such as this, I do not have to adhere to the standard Law School grading system. Thus, there are no curves nor minimums/maximums on how many students can get A's, A-'s, etc.

### **Participation & Classroom Behavior:**

Class participation comprises the largest portion (50%) of a student's grade, which reflects the different approach that I believe a hands-on seminar should have compared to a traditional doctrinal course. During the course, we may have quizzes, class discussions, or other activities. For many, but not all, of these activities, full points for these activities are given if students give a good faith effort. Generally, all students should be able to get full points for participation. However, exceptions will be made for students with notably *bad* class participation. Notably *bad* class participation may consist of the following:

- Being absent unreasonably often such that one could reasonably wonder whether the student has dropped the course
- Behaving disruptively or disrespectfully in class (it is okay to disagree but not to be disrespectful)
- Severe lack of preparation regarding class topics
- Lack of communication with me addressing any above deficiency

I expect that no student will cross this line, but I do reserve the discretion to lower a student's participation grade to reflect sub-par participation. In *extreme* cases, and if the misbehavior is serious enough to warrant it, I reserve the discretion to lower a student's final examination grade by one step (e.g., A- to B+) or more.

This policy is in place to help promote proper behavioral standards in classroom, professional, and other settings. To give an example, if you planned to meet with a client but need to cancel or reschedule, you owe them a reasonable explanation; attending class is also important and should merit similar considerations. Further, in class (as in other settings), we may discuss topics on which people have strong and differing opinions. If we want to begin and end such a discussion as a group, we all have to agree to the rules listed above. In such discussions, I reserve the right and power to intervene (but only when one of the rules has been or may likely be violated).

### **Summary of Relevant Academic Policies:**

For this course, students are expect to comport with the University of Washington Student Conduct Code, its companion policies, and the Law School Honor Code. For example, students may not give or get any unauthorized or excessive assistance in the preparation of any work. Submission (online or otherwise) of assignment (or any course document), or placing one's name on an exam, is a statement of academic honor that the student has not received or given inappropriate assistance in completing it and that the student has complied with the University academic policies in that work.

## Access & Accommodation:

### **Disability Accommodations:**

Your experience in this class is important to me. If you have already established accommodations with Disability Resources for Students (DRS), please communicate your approved accommodations to me at your earliest convenience so we can discuss your needs.

If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (conditions include but not limited to: mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DRS at 011 Mary Gates Hall, (206)543-8924, uwdrs@uw.edu, or the official website. DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and DRS. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law.

### **Religious Accommodations:**

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at Religious Accommodations Policy. Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form.

## Other University Resources:

### **Mental Health Resources:**

Regardless of their backgrounds, many people, at some point in their lives, experience a range of challenges or events that can interfere with their mental health, such as strained relationships, personal losses, an increased number of stressors, substance use, etc. These mental health concerns may diminish your academic performance and/or your daily functioning. The University of Washington has multiple resources available to help address the mental health needs of all those in our community. *Please* take advantage of these resources and do not hesitate to seek treatment if you are struggling. Find those resources here.

### **Student Learning Technologies (UW-IT) Support:**

Contact help@uw.edu or 206-221-5000 for UW NetID and general networking support. UW-IT maintains a help desk at the Odegaard Undergraduate Library and a website here.

**Research Services Librarians:** The Research Services librarians are legal research experts who are dedicated to helping students with research questions, database training, locating academic resources, etc. Visit the library's UW Law Students page for more information about their services generally. To get help, you can email the Research Services librarians directly at lawref@uw.edu. You are also welcome to visit the Reference Office on L1 to speak with the Research Services librarian on duty. If you have a detailed research question or would prefer to meet privately with a librarian, you may set up an appointment.

## Tentative Course Outline:

At the end of each class, I will announce any changes to the outline listed below. I will try to adhere to the syllabus as closely as possible, but I am sure we will not have time to cover all of the listed items. I advise students to hold back from reading ahead for this reason (and to ensure that proper attention is given to the most relevant material for the next class). Any reading assigned for a topic should be read *before* the topic begins; any assignment for a topic will be distributed *after* the topic ends. I will make sure to remind everyone in class when they should do readings and when assignments are given out.

First Half Topics	
Topic 1	<ul style="list-style-type: none"><li>• Introduction &amp; Software</li><li>• Reading: Nothing</li><li>• Assignment: Background Survey</li></ul>
Topic 2	<ul style="list-style-type: none"><li>• Descriptives &amp; Visualization</li><li>• Reading: Nothing</li><li>• Assignment: First R Script (Descriptives)</li></ul>
Topic 3	<ul style="list-style-type: none"><li>• Probability Theory &amp; Frequentists</li><li>• Reading: <i>Normal Distribution</i>, MATH IS FUN, <a href="https://www.mathsisfun.com/data/standard-normal-distribution.html">https://www.mathsisfun.com/data/standard-normal-distribution.html</a>.</li><li>• Assignment: Nothing</li></ul>
Topic 4	<ul style="list-style-type: none"><li>• p-Hacking, Bayesians, &amp; Other Data Manipulation</li><li>• Reading: <i>Still Not Significant</i>, PROBABLE ERROR (April 21, 2013), <a href="https://mchankins.wordpress.com/2013/04/21/still-not-significant-2/">https://mchankins.wordpress.com/2013/04/21/still-not-significant-2/</a>; Christie Aschwanden, <i>Failure Is Moving Science Forward</i>, FIVETHIRTYEIGHT (Mar. 24, 2016), <a href="https://fivethirtyeight.com/features/failure-is-moving-science-forward/">https://fivethirtyeight.com/features/failure-is-moving-science-forward/</a>.</li><li>• Assignment: Nothing</li></ul>
Topic 5	<ul style="list-style-type: none"><li>• Chi-Square &amp; Disparity</li><li>• Reading: Anna C. McFadden et al., <i>A Study of Race and Gender Bias in the Punishment of School Children</i>, 15 EDUC. &amp; TREATMENT CHILD. 140 (1992).</li><li>• Assignment: Nothing</li></ul>
Topic 6	<ul style="list-style-type: none"><li>• Causation, Basic Experimental Design, &amp; Missing Data</li><li>• Reading: Phyllis Jo Baunach, <i>Random Assignment in Criminal Justice Research: Some Ethical and Legal Issues</i>, 17 CRIMINOL. 435 (1979); D. James Greiner et al., <i>Using Random Assignment to Measure Court Accessibility for Low-Income Divorce Seekers</i>, 118 PROC. NAT'L ACAD. SCI. e2009086118 (2021).</li><li>• Assignment: Nothing</li></ul>
Mid-Term Examination	

<b>Second Half Topics</b>	
Topic 7	<ul style="list-style-type: none"> <li>• t-Tests &amp; Mean Differences</li> <li>• Reading: Nothing</li> <li>• Assignment: Second R Script (Chi-Square &amp; t-Tests)</li> </ul>
Topic 8	<ul style="list-style-type: none"> <li>• ANOVA: Between Groups &amp; Experimental Design II</li> <li>• Reading: Nothing</li> <li>• Assignment: Nothing</li> </ul>
Topic 9	<ul style="list-style-type: none"> <li>• ANOVA 2: Complications</li> <li>• Reading: Rebecca K. Helm et al., <i>Too young to plead? Risk, rationality, and plea bargaining's innocence problem in adolescents</i>, 24 PSYCHOL. PUB. POL'Y &amp; L. 180 (2018).</li> <li>• Assignment: Third R Script (ANOVA), "Correlation is not Causation"</li> </ul>
Topic 10	<ul style="list-style-type: none"> <li>• Correlations, "Predicting" Relationships, &amp; Linear Regressions</li> <li>• Reading: Nothing</li> <li>• Assignment: Nothing</li> </ul>
Topic 11	<ul style="list-style-type: none"> <li>• Regressions 2: Logistic &amp; Pseudo-experimental Methods</li> <li>• Reading: Kareem L. Jordan &amp; Tina L. Freiburger, <i>The Effect of Race/Ethnicity on Sentencing: Examining Sentence Type, Jail Length, and Prison Length</i>, 13 J. ETHNICITY CRIM. JUST. 179 (2015).</li> <li>• Assignment: Final R Script (Correlations &amp; Regressions)</li> </ul>
Topic 12	<ul style="list-style-type: none"> <li>• Regressions 3: Polynomial, Monstrosities, &amp; Predictive Models (Machine Learning, Trees, etc.)</li> <li>• Reading: Jonathan P. Kastellec, <i>The Statistical Analysis of Judicial Decisions and Legal Rules with Classification Trees</i>, 7 J. EMPIRICAL L. STUD. 202 (2010).</li> <li>• Assignment: Nothing</li> </ul>
Topic 12	<ul style="list-style-type: none"> <li>• Detecting "Bullshit": How to Find "Fakers" (ft. Dan Ariely)</li> <li>• Reading: Gideon Lewis-Kraus, <i>They Studied Dishonesty. Was Their Work a Lie?</i>, NEW YORKER, Sept. 30, 2023.</li> <li>• Assignment: Nothing</li> </ul>
Final Examination	