

**PLS 211: Quantitative Methods**  
**Fall 2022—Monday, Wednesday, and Friday: 10:00-10:50am**  
**Classroom: 8.321 (M & W) & Online (F)**

**I. Course Instructor:**

Dr. Chunho Park, Assistant Professor of Political Science and International Relations  
School of Sciences and Humanities, Nazarbayev University  
Office: 8.417  
Email: [chunho.park@nu.edu.kz](mailto:chunho.park@nu.edu.kz) (When emailing, please include PLS 211 in the subject line)  
Office Hours (via Zoom): Monday 2:00-4:00 pm or by Appointment

**II. Course Objectives:**

This course is designed to introduce you to the logic of quantitative methods in political science research. To this end, a series of relevant concepts and issues to quantitative methods will be taught and discussed. The thematic emphasis will be on (but not limited to) causality, measurement, probability, uncertainty, and regression analysis. The goal of this course is to get you familiarize quantitative methods and techniques and to help you understand the basic logic and issues in quantitative works in political science. You will be also asked to do a variety of exercises using a statistical package, RStudio specifically, in order to enhance your ability to conduct your own analyses.

You should leave this course with the following competencies:

- You should be familiar with the key concepts of quantitative methods.
  - You should be able to understand the basic logic of quantitative political science research.
  - You should acquire elementary skills in quantitative methods necessary for you to test your theoretical arguments or hypotheses.
  - You should be able to produce, organize, and interpret data using RStudio.
  - You should be able to evaluate quantitative works in political science in an informed and responsible manner.
- I reserve the right to change this syllabus, including course schedule, assigned readings, and due dates, etc. All changes will be announced via Moodle.

**III. Course Materials:**

There is one required text for this course:

- Kellstedt, Paul M., and Guy D. Whitten. 2013. *The Fundamentals of Political Science Research* (2<sup>nd</sup> edition). Cambridge University Press.

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If there are additional required reading materials (e.g., book chapters, research articles), then I will make available via the course website on Moodle. Lecture slides will be uploaded on Moodle after class.

**IV. Course Requirements:**

**TWO EXAMS:** (20% FOR MIDTERM EXAM, 30% FOR FINAL EXAM). There will be two non-cumulative exams (midterm and final) administered during the semester. The format of each exam will be described at least one week before the exam. The exams will assess your knowledge of material contained within the assigned readings and from lecture.

**HOMEWORK (30%):** There will be 4 assignments consisting of puzzles to test your comprehension of the course materials or the previous class' lecture content. You will have a week to complete each assignment. You are encouraged to work together on each assignment whenever possible, but your answers should be written independently and your submission should be your own work. Only your three highest scores (e.g., drop the lowest one) will be used when generating final grades.

**QUIZZES (10%):** from Week 2 on, you will be asked to take a quiz related to the materials covered during lectures on the other days during the week or previous week. These quizzes will assess your comprehension of the assigned readings or lecture content. They will not necessarily be announced ahead of time, so please make sure that you come to class prepared. When computing your final grade, I will drop the two lowest scores. You will be given a 0 if you are not physically present in class.

**PARTICIPATION AND ATTENDANCE: (10%).** The final portion of your grade is based on your ability and willingness to contribute to our class on Mondays and Wednesdays. This portion of your grade will be a function of the following three components: (1) Preparation, (2) Attendance, and (3) Participation.

(1) Preparation: I expect you to complete the assigned readings and come prepared to answer questions. In particular, make sure to watch video lectures posted on Fridays before coming to class on Mondays. This will be also essential to your success in this course.

(2) Attendance: you are required to attend every class on Mondays and Wednesdays. You will not do well in this course if you do not show up. Keep in mind that gaps in the early material will have detrimental consequences later on (especially for this course). You will lose 2% of your final grade when you miss each class and missing five or more classes will result in you receiving a failing grade for the entire course. I take attendance at the beginning of class and I will deduct 1% of your final grade if you are late for class. Being late in class for more than 15 minutes or leaving before class is dismissed will be marked absent. It is your sole responsibility to ensure that you get notes, information about assignments, or changes to the

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syllabi from a classmate if you miss a class. See the section below policies regarding Late Work, Make-Ups, Missed Quizzes or Exams.

- Wearing a facemask is required, and it must always your nose as well as mouth, not only your mouth. No one without properly wearing a facemask will not be allowed to stay in the classroom. This policy will be strictly enforced, and if you are asked to leave the classroom due to this issue, you will be marked absent. If you refuse to leave the classroom or you continue to violate this rule, your case will be reported to the school and you will be subject to disciplinary action as a result.

(3) Participation: A list of meaningful participation may include: asking questions to clarify course topics, answering questions that I pose in class, actively participating in class discussion, and offering respectful comments during class. Please DO NOT chat with your neighbor during class discussions, play around your computer or tablet, listen to your iPod, or check your cellphone. All of them is distracting to me as well as those around you. I DO NOT allow you to use your laptops in class. (“Laptops are great. But not During a Lecture or a Meeting.” [https://www.nytimes.com/2017/11/22/business/laptops-not-during-lecture-or-meeting.html?fbclid=IwAR1Oh73IE8zXfWQoojqKV9Acf9o9iULP4MK\\_E8A69xZaoWGbMZDB4SibPB8](https://www.nytimes.com/2017/11/22/business/laptops-not-during-lecture-or-meeting.html?fbclid=IwAR1Oh73IE8zXfWQoojqKV9Acf9o9iULP4MK_E8A69xZaoWGbMZDB4SibPB8)) Use your pens for note taking. In particular, do not bring your cellphone WITHOUT TURNING IT OFF. If your cell phone rings, you are sending text messages, or I find your cell phone is on, you will be asked to leave and counted absent for that day.

### V. Student Evaluation and Grading:

Your final grade will be determined accordingly:

Midterm Exam:	20%
Final Exam:	30%
Homework:	30%
In-class Quizzes:	10%
Attendance and Participation	10%
TOTAL:	100%

Grading Scale:

<b>A</b>	95 – 100	<b>A-</b>	90 – 94.99		
<b>B+</b>	85 – 89.99	<b>B</b>	80 – 84.99	<b>B-</b>	75 – 79.99
<b>C+</b>	70 – 74.99	<b>C</b>	65 – 69.99	<b>C-</b>	60 – 64.99
<b>D+</b>	55 – 59.99	<b>D</b>	50 – 54.99	<b>F</b>	Below 50

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**VI. Course Outline (Tentative):**

**Delivery of Course:** This course will consist of synchronous (Mondays & Wednesdays) and asynchronous (Fridays) deliveries. I will record my lectures and upload video files for a one-day lecture before the start of the scheduled class time on Fridays. The total length of the recorded lecture per day will not exceed 50 minutes. Students are required to attend class during the scheduled class time on Mondays and Wednesdays. In-person class sessions will not be recorded and you are strictly prohibited from recording any part of a class session.

<b>Date</b>	<b>Topic</b>	<b>Assigned Readings and Activities / Due Dates</b>
Aug. 15	Syllabus	*No Assigned Readings
Aug. 17/19	Scientific Study of Politics	*K&W, Ch.1
Aug. 22 ~	Theory Building / Introduction to RStudio	*K&W, Ch.2; RStudio Session I (Wednesday)
Aug. 31/Sep. 2	Causality / Experimental vs. Observational Studies	*K&W, Ch.3-4
Sep. 5 ~	Measurement, Descriptive Statistics, and Distribution	*K&W, Ch.5; RStudio Session II (Wednesday)
Sep. 12 ~	Probability and Statistical Inference	*K&W, Ch.6 (Probability and Conditional Probability)
Sep. 19 ~		*K&W, Ch.6 (Random Variables and Distributions; Central Limit Theorem); RStudio Session III (Wednesday); Assignment I
Sep. 26	Midterm Review	*No Assigned Readings
Sep. 28	<b>Midterm Exam</b>	GOOD LUCK!
Oct. 3 ~	<b>Fall Break – No Class</b>	
Oct. 10 ~	Hypothesis Testing	*K&W, Ch.7 (Uncertainty and Confidence Intervals)
Oct. 17 ~		*K&W, Ch.7 (Bivariate Hypothesis Tests); RStudio Session IV (Wednesday); Assignment II
Oct. 24 ~	Bivariate Regression Models	*K&W, Ch.8
Oct. 31 ~		*K&W, Ch.8; RStudio Session V (Wednesday); Assignment III
Nov. 7 ~	Multiple Regression Models	*K&W, Ch.9 (9.1-9.4, 9.6-9.9)
Nov. 14 ~		*K&W, Ch.10 (10.1-10.3); RStudio Session VI (Wednesday); Assignment IV
Nov. 21	Final Review	*No Assigned Readings
TBD	<b>Final Exam</b>	

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The outline above is subject to changes as the semester progresses. In the event that changes are made, students are responsible for any changes I announce in class. The readings assigned to a particular week will be discussed in class. You should be prepared to answer any questions about the material for that week.

**VII. Course Policies and Procedures:**

**Classroom Decorum:** I desire to create a space where meaningful and constructive dialogue is encouraged, and your opinions are shared. However, this requires from all of us *mutual respect, a willingness to listen, and tolerance of opposing viewpoints*. I expect that respect for individual differences and alternative points of view will be maintained at all times in this course. One's words and use of language should be tempered and within acceptable bounds of civility and decency.

**Course Recording and Note Taking:** You should not create an audio or video recording of this course without the expressed and written consent of the instructor. You are not allowed to use a laptop to take note for in-person sessions. Again, use your pens for note taking.

**Late Work, Make-Ups, Missed Quizzes or Exams:** I expect students to make every effort to turn in assignments, take required quizzes / exams, or complete other activities on time and as scheduled. There will be no make-up exams for anyone missing the exam date without my *prior approval with very limited exceptions*. The exceptions ONLY include medical emergencies experienced by you, or participation in a University-sponsored event or activity. NO OTHER EXCEPTION WILL BE MADE. This policy is also applied to other graded activities, including team activities, assignments, and attendance. Any other personal issues, including getting up late, attending wedding ceremonies, pre-scheduled vacations, or problems with your electronic devices (e.g., desktops, laptops or printers), are not legitimate excuses for your failure to meet such requirements. I do not accept any late assignments. If you know in advance you will miss such a required graded activity, you must notify me in advance (at least a week ago). If you are ill or other extenuating circumstances cause you to miss a required graded activity, notify me as soon as possible and provide appropriate documentation (e.g., doctor's note). Determining whether the case qualifies will be left to my discretion and will require proof on the part of the student. When it comes to an (midterm or final) exam, only *extremely severe medical emergencies* will allow you to miss it and take a make-up exam. In other words, normal illnesses, including a cold, a headache, or heartburn, do not constitute legitimate excuses of missing an exam. If your case does not qualify, you will be given a 0 for the test or assignment.

**Communication with the Instructor:** If you have any suggestions, comments, and questions about the course, feel free to stop by my office (office hours are listed above), set up an appointment, or email me. Before sending an email to me, I strongly recommend to read over "Email Etiquette" at the following link: <https://marktomforde.com/academic/undergraduates/Email-Etiquette.html>. Please allow 24 hours for a response when contacting me during the week, and it may take longer (up to 48 hours) on

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the weekends. I will use email and our Moodle site to communicate with you about course assignments, activities, and any changes to the course schedule or syllabus.

**Grade Appeals or Challenges:** I am not infallible and make grading errors, including arithmetic errors (though it rarely happens). Let me know as soon as possible if you believe I have made any mistakes. If you have a question or concern regarding your performance on an assignment or an exam, or your standing in the course, I am happy to discuss this with you.

In the event that you would like me to re-examine or re-grade an assignment that has been graded and handed back, I will do so after 24 hours have passed since the work was handed back to the entire class (not to the individual). You should also present a written (or email) statement that concisely express a *substantive and legitimate* reason for the request. “Substantive and legitimate” reasons include a grade miscalculation or a misunderstanding between the instructor and student, specifically in terms of the content of the student’s work. Your appeal will be rejected if it does not satisfy these conditions. You have five business days to appeal the assignment once the work is handed back to the entire class, and no grade challenges will be entertained afterward. Please also note that if you appeal a grade on an assignment and I decide to reexamine the assignment, the grade may go up *or* down. It will be treated as a new grade on the assignment, and all aspects of the assignment are open to reexamination.

Once your final grade is released, IT IS FINAL. If this is your final semester, or you are desperate for a good grade for whatever reason, then you need to earn it. DO NOT EVER TRY TO NEGOTIATE YOUR GRADE WITH ME.

**Academic Integrity:** Plagiarism and other academic dishonesty/misconduct will not be tolerated. These are insults to me, your peers, and yourself. It is your sole responsibility to know and abide by the Student Code of Conduct for Nazarbayev University. Violations of this policy may include, but not limited to, cheating, plagiarism (including “patchwriting”), aid of academic dishonesty, fraud check-in, fabrication, and threatening behavior. These instances and other academic dishonesty/misconduct will be handled according to the requirements and procedures in the Student Code of Conduct for Nazarbayev University. The range of sanctions includes, but not limited to: a zero for the assignment and/or course, being reported to the SHSS Disciplinary Committee, probation, suspension, or expulsion from the university. I strongly recommend you to refer to the Student Code of Conduct for Nazarbayev University for possible sanctions and penalties.

Students should also be familiar with the university’s official statement on academic misconduct, plagiarism, cheating, and falsification of documents:

**Academic misconduct** defined. Academic misconduct is an act in which a student:

1. Seeks to claim credit for the work or efforts of another without authorization or citation ("plagiarism");
2. Uses unauthorized materials or fabricated data in any academic exercise;

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3. Forges or falsifies academic documents or records;
4. Intentionally impedes or damages the academic work or others;
5. Engages in conduct aimed at making false representation of any student's academic performance;
6. Engages in any form of cheating on an exam or assignment;
7. Assists other students in any of these acts.

**Plagiarism** is intentionally or carelessly presenting the work of another as one's own. It includes submitting an assignment purporting to be the student's original work which has wholly or in part been created by another person. It also includes the presentation of the work, ideas, representations, or words of another person without customary and proper acknowledgement of sources. Plagiarism occurs when a person:

1. Directly copies one or more sentences of another person's written work without proper citation. If another writer's words are used, you must place quotation marks around the quoted material and include a footnote or other indication of the source of the quotation. This includes cut and paste from the internet or other electronic sources;
2. Changes words but copies the sentence structure of a source without giving credit to the original source, or closely paraphrases one or more paragraphs without acknowledgement of the source of the ideas, or uses graphs, figures, drawings, charts or other visual/audio materials without acknowledging the source or the permission of the author;
3. Submits false or altered information in any academic exercise. This may include making up data for an experiment, altering data, citing nonexistent articles, contriving sources, etc.;
4. Turns in all or part of assignment done by another student and claims it as their own;
5. Uses a paper writing service, has another student write a paper, or uses a foreign language translation and submits it as their own original work;
6. In computer programming class, uses computer code written by another student.

**Cheating.** Cheating harms the very fiber of the University community. Honest students are put at a disadvantage due to the unfairness of the act and the potential that the grading structure of the class may be altered to their disadvantage. Students who cheat do not receive a real education, depriving themselves of the experience of how to learn. Cheating also damages the reputation of the University as well as the fabric of society. Finally, cheating damages the ethics of the individual, teaching them a wrong approach to life that will not be sustainable in their future careers. Cheating occurs when a person:

1. Gains or provides unauthorized access to examination materials;
2. Uses notes, mobile phones, books, calculators or other materials/devices during an examination without the permission of the instructor;
3. Copies from another student's exam sheet with or without their permission or allow a student to copy from their exam sheet;
4. Obstructs or interferes with another student's efforts in an academic exercise;
5. States a dishonest reason in a request for an extension for an exam or paper;
6. Continue to write even when time is up during an exam;
7. Talks during an examination period;
8. Asks another student take an examination or quiz;

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9. Commits any other action that gives a student an unfair advantage during an examination period or on any assignment being graded for credit;
10. Assists in, facilitates, organizes or arranges any of the above-mentioned actions.

**Falsification of documents.** Falsification of documents is a form of academic dishonesty that deliberately seeks to misrepresent some aspect of the student. Falsification of Documents occurs when a person:

1. Presents a falsified application form, financial aid form or any other official form submitted to the University;
2. Presents a falsified or misleading medical certificate in order to obtain an excuse for a class absence, examination absence or late work or for any other reasons;
3. Uses a falsified or illegally altered student identification card;
4. Tampers with transcripts or other academic records.

(Nazarbayev University Student Code of Conduct)