URP 6231: Quantitative Data Analysis for Planners

Sections: 18078 & 18079

Fall 2023 | Course URL: https://ufl.instructure.com/courses/488655

Instructor:	Dr. Emre Tepe Assistant Professor	Email: Office:	emretepe@ufl.edu Architecture Building 444
Section:	18078	**Time:**	No designated meeting time
Delivery:	Online (100 %) - asynchronous	**Place:**	Virtual
Section:	18079	**Time:**	Tuesday 3:00 PM – 6:00 PM
Delivery:	In-person	**Place:**	Rinker School 215
TA:	Nasrin Nahar	**TA Email:**	nasrin.nahar@ufl.edu

Course Communication: Instructors can be reached through Canvas inbox or by email. Expect a response in 24 hours, excluding holidays and weekends.

Office hours: Instructor will offer office hours to answer students' course-related questions and concerns over Zoom and in-person meetings. Students are expected to schedule time for office hour in order to avoid any time conflicts. Please sign up for an available time slot using the following link: https://www.picktime.com/emretepe. Please indicate whether you want to have in-person or virtual meeting when you sign up for an office hour.

Course materials: All course materials including slides, class notes, assignment instructions, and course video records will be available on Canvas course page: https://elearning.ufl.edu. It's highly recommended to check regularly the designated course page on Canvas for updates and new course materials.

Textbook: The following book will be used as the textbook for this class: Andy Field (5th Edition) Discovering Statistics Using IBM SPSS Statistics, SAGE Publications Ltd.

Main references: In addition to the textbook, you may consider reading the following reference if you want to learn more about quantitative analysis and statistics:

- Klosterman, Richard E., Community Analysis and Planning Techniques, Roman and Littlefield Publishers. Savage: Maryland, 1990.
- Kutner M., Nachtsheim C., and Neter J., Applied Linear Regression Models 4th Edition, McGraw-Hill, Irwin, 2004.
- Meier, K. J., Brudney, J. L., Bohte, J., Applied Statistics for Public and Nonprofit Administration 7th Edition, Thomson Wadsworth, 2009.
- Moore, D. S. and Notz, W. I., Statistics Concept and Controversies 7th Edition, W.H. Freeman and Company, New York, 2009.

- Newbold, P., Carlson, W. L., Thorne, B. M., Statistics for Business and Economics 8th Edition, Pearson.

Course description: This course is intended to provide students in the Urban and Regional Planning program with fundamental data analysis techniques and statistics skills required by the UF Urban and Regional Planning program for use in thesis and dissertation research and by the planning profession. The course provides analysis skills that allow planning students to achieve in the area of statistical analysis as required for the hypothesis testing, general planning, and within the areas of specialization offered by the department. In addition, the effort has been made to include examples and assignments that provide an opportunity to utilize statistical analysis as a problem solving/analysis methodology for planning decision making. Finally, the course supports the department's mission as a core course in the department's curriculum.

Prerequisite knowledge and skills: Students taking this course do not need to have a prior knowledge about statistics and quantitative analysis, however a basic knowledge of algebra is necessary. Please contact the instructor as soon as possible to discuss appropriate strategies, if you think you don't have enough prior knowledge about algebra.

Purpose of this course: Urban and rural areas are complex systems. Quantitative methods are required to analyze such systems. In recent years, we have been experiencing unprecedented amount of data generated about built environment. Therefore, working with data is part of our job and it is inevitable. This course is intended to provide students with an understanding of widely used quantitative analysis and statistical techniques in urban and regional planning.

Course objectives: By the end of this course, students will be able to:

- Module 1
    - Recall basic concepts of statistics and quantitative data analysis.
    - Locate widely used secondary data sets in urban planning.
    - Repeat the basic operations in the statistical software
- Module 2
    - Identify data types
    - Conduct and interpret Descriptive Statistics
    - Conduct data visualization
- Module 3
    - Recall basic concepts of hypothesis
    - Apply hypothesis testing in one-sample and two-sample cases
    - Apply F and T tests
- Module 4
    - Apply and interpret correlation analysis
    - Apply multiple linear, logistic, Poisson regressions
    - Interpret regression model results
- Module 5
    - Analyze historical trends in population data
    - Apply linear and nonlinear regression models to population data
    - Apply Cohort-Component method for population projection

Instructional methods: The course will have weekly a lecture presenting concepts and techniques for quantitative data analysis and statistics. A number of homework assignments will test student's understanding of the lecture presentations.

Important dates:

- Classes Begin .... August 29, 2023
- End of Classes .... December 5, 2023

Course modules:

- Module # 1: Fundamentals of Statistics
- Module # 2: Describing Data
- Module # 3: Testing Hypothesis
- Module # 4: Regression
- Module # 5: Population Projections

Grade distribution:

- Questionnaires and Feedback Surveys – 1%
    - Create your Student Profile –graded
    - Initial assessment of your statistical knowledge – not graded
    - 3-2-1 – not graded
    - Stop/Start/Continue Feedback Survey – not graded
- Assignments– 99%
    - Module 1: Assignment #1
    - Module 1: Assignment #2
    - Module 2: Assignment #3
    - Module 2: Assignment #4
    - Module 3: Assignment #5
    - Module 4: Assignment #6
    - Module 4: Assignment #7
    - Module 4: Assignment #8
    - Module 5: Assignment #9 (draft presentation)
    - Module 5: Assignment #10 (final presentation)

Letter grade distribution:

>= 93.00	A	73.00 - 77.99	C
90.00 - 92.99	A-	70.00 - 72.99	C-
88.00 - 89.99	B+	68.00 - 69.99	D+
83.00 - 87.99	B	58.00 - 67.99	D
80.00 - 82.99	B-	55.00 - 57.99	D-
78.00 - 79.99	C+	<= 55.99	E

Deadline of assignments: Deadlines of assignments will be posted on Canvas.

Submissions: Students must submit their assignments to the assignments in Canvas in the format identified in the instructions. In this class, you are expected to complete multiple assignments throughout the semester. Completing assignments on time is critical to keep both you and us on track. However, life sometimes can be complicated. Therefore, you are allowed to submit two of your assignments 3 days late. If you submit more than 2 late submissions, we will deduct 20% points from your late assignment. Any assignment is submitted more than 3 days after the due date won't be graded. If you experience unexpected circumstances, please feel free to contact the instructor.

Course policies:

Make-up policy: Up to 2 late submissions are accepted. Please review late submission policy for details. Please feel free to contact me for emergency issues.

Course technology: In this course, we will be using IBM SPSS 27, UF Apps System, Canvas and VoiceThread. You can learn more about these tools in the Start Here module and contact UF Help Desk for additional assistance at (352)392-4357, option 2.

UF Policies:

University Policy on Accommodating Students with Disabilities: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

University Policy on Academic Conduct: The university's honesty policy regarding cheating, plagiarism, etc. Suggested wording: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Netiquette: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. Refer to Netiquette Guidelines for more details.

Student evaluations: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/

Add/Drop policy: University policies on such matters as add/drop, incomplete, academic probation, termination of enrollment, reinstatement, and other expectations or procedures can be found in the graduate student handbook and at the Dean of Students website.

COVID related practices: We will have face-to-face instructional sessions to accomplish the student learning objectives of this course. In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions.

- You are required to wear approved face coverings at all times during class and within buildings. Following and enforcing these policies and requirements are all of our responsibility. Failure to do so will lead to a report to the Office of Student Conduct and Conflict Resolution.

- This course has been assigned a physical classroom with enough capacity to maintain physical distancing (6 feet between individuals) requirements. Please utilize designated seats and maintain appropriate spacing between students. Please do not move desks or stations.
- Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
- Follow your instructor's guidance on how to enter and exit the classroom. Practice physical distancing to the extent possible when entering and exiting the classroom.
- If you are experiencing COVID-19 symptoms (Click here for guidance from the CDC on symptoms of coronavirus), please use the UF Health screening system and follow the instructions on whether you are able to attend class. Click here for UF Health guidance on what to do if you have been exposed to or are experiencing Covid-19 symptoms.
  - Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. Find more information in the university attendance policies.

The university's honesty policy regarding cheating and plagiarism: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Click here to read the Honor Code. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Getting Help:

For issues with technical difficulties for Canvas, please contact the UF Help Desk at:

- http://helpdesk.ufl.edu

- (352) 392-HELP (4357)

- Walk-in: HUB 132

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Campus Resources:

Health and Wellness

- *U Matter, We Care*: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit U Matter, We Care website to refer or report a concern and a team member will reach out to the student in distress.
- *Counseling and Wellness Center*: Visit the Counseling and Wellness Center website or call 352-392-1575 for information on crisis services as well as non-crisis services.

- *Student Health Care Center*: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the Student Health Care Center website.
- *University Police Department*: Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).
- *UF Health Shands Emergency Room / Trauma Center:* For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road,
- Gainesville, FL 32608; Visit the UF Health Emergency Room and Trauma Center website.

Academic Resource

- *E-learning technical support*: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.
- Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.
- Library Support: Various ways to receive assistance with respect to using the libraries or finding resources.
- Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.
- Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.
- *Student Complaints On-Campus*: Visit the Student Honor Code and Student Conduct Code webpage for more information.
- *On-Line Students Complaints*: View the Distance Learning Student Complaint Process.

UF's Integrated Risk Management Position:

https://irm.ufl.edu/fast-path-solutions/and https://irm.ufl.edu/fast-path-solutions/items/chatgpt.html

From UF Privacy:

ChatGPT is currently being assessed for regulatory concerns related to privacy and confidentiality of data within the United States and internationally.

Please be advised that data may be retained by ChatGPT and provided as responses to other users. Individuals have limited control over their data and parent company, OpenAI, offers no process to amend or delete data that has been submitted. Therefore, putting data into ChatGPT or similar services is equivalent to disclosing the data to the public.

Any data classified as sensitive or restricted should not be used. This includes, but is not limited to the following data types:

- Social Security Numbers
- Education Records
- Employee Data
- Credit Card Numbers
- Protected Health Information
- Human Subject Research Data

- Unpublished Research Data
- Personal Identifiable Information

When using ChatGPT, please review responses for factual accuracy, as ChatGPT has been known to assert incorrect facts. Please be cognizant of our data stewardship responsibilities and the importance of safeguarding information.

Please follow the Usage Guidelines in the chart below to properly use this Fast Path Solution.

Open Data	Sensitive Data	Restricted Data
See Guidelines Above From The Privacy Office	Not Permitted	Not Permitted