**Instructor:** Tod Mijanovich  
**Email:** tod.mijanovich@nyu.edu  
**Phone:** 212-998-7467  
**Office:** 209 Kimball Hall, 246 Greene Street  
**Office Hours:** Thursdays, 10 am to noon and by appointment

**Meeting Times/Location:**  
The course meets on Wednesdays from 2:00 to 4:50 pm in Room LC19, Tisch Hall.

**Prerequisites:**  
A course in high school algebra.

**Course Description:** In this first of a two-semester sequence for graduate students, we begin by discussing variables and approaches for measuring them, and then cover statistical tools for organizing and describing quantitative data and for drawing inferences to populations based on samples drawn from those populations. The statistical software package Stata is used to help students learn how to apply these tools to real data and learn what it means to be a data analyst in practice. This course provides a conceptually oriented, non-mathematical approach to learning the material. It is not appropriate for students seeking to learn the mathematical theory underlying these statistical techniques. The topics covered on a weekly basis are listed in the course syllabus.

**Course Materials:**

**Website:** Handouts, lecture notes, readings, homework assignments, project assignments, and general information will be posted under Course Materials, Resources, and Assignments on the NYU Classes course website.

**Required Text:** *Statistics Using Stata: An Integrative Approach* (in press) by Weinberg, S. L. and Abramowitz, S. A. (in press), Cambridge University Press. Since the book is not yet published, book chapters will be made available on our class website in manuscript form.

**Power Point Slides:** Are posted on our course website under Resources. Although I may not use them during lectures, they highlight important points in some chapters, and may be useful in helping you identify which topics from each chapter are particularly important. They may also be helpful in organizing your studying for the midterm and final.

**Supplementary Readings:** As posted on our course website.

**Stata:**

We will make heavy use of Stata, which is available through NYU’s Virtual Computer Lab (VCL) to all NYU degree-seeking students with active e-mail accounts. Students who qualify will see the VCL channel on the Academics tab in NYUHome. To access the VCL: Log into NYUHome (home.nyu.edu); Select the Academics tab, then scroll down until you see the "Virtual Computer Lab" channel; Click VCL Log In; Once on the VCL page, click Log Into the VCL Now!; Enter your NetID and password; Click Log In. **Note:** The first time you log into the VCL, you will be prompted to install the Citrix ICA plug-in.

Stata is also available at all computer labs except for Kimball Hall, and a Mac version is not available at Third Avenue. As a student in this class you have priority access to the computer labs, which means that
you may enter the labs at any time by swiping your ID. For a current list of software available by location, please see the ITS Software Applications by Location page.

Stata is also available for purchase at discounted prices for students.

Course Requirements & Grading:

We will be taking advantage of NYU's new video streaming technology to facilitate your learning of Stata. Prior to each week's class meeting you will be asked to read a chapter or two in the text and view the accompanying video(s) associated with those chapters. Reading each chapter before viewing its associated video is essential for understanding the contents of each video, which demonstrate how to use Stata to carry out the analyses covered in the text. During class, I will review the material in the text that you have been asked to read, address any questions you may have, and use the remaining class time for computer lab work. The overall goal of this new “blended” course format is to create a more interactive setting that provides hands-on experience with data analysis within a supportive classroom environment.

Homework: Practicing what has been covered in class is essential to learning statistics. Homework will be assigned, collected, and graded each week. All students are responsible for completing all homework assignments on time and raising related questions in class. See the Homework Guidelines file under the Assignments tab on our class website for procedures regarding the format and handing in of homework assignments.

Project: Students are expected to complete a project that requires the selection of appropriate statistical methods to answer a series of questions based on a given data set made available by the instructor and to interpret and communicate findings in a journal-like format. Analyses based on the use of Stata will be required.

Exams: There will be one midterm and one cumulative final.

Grading:
25%   Homework
25%   Midterm Exam
25%   Final Exam
25%   Project that requires the analysis of data and the communication of results in the form of a journal-like article.
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<tr>
<th>Month</th>
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<tbody>
<tr>
<td>September</td>
<td>7</td>
<td>1</td>
<td>Overview &amp; introduction to Stata: Chapter 1; Examining univariate distributions: Chapter 2</td>
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<td>14</td>
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<td>Examining univariate distributions: Chapter 2, cont'd; Measuring location, spread, &amp; skewness: Chapter 3</td>
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<td>Re-expressing variables and the Stata do-file: Chapter 4</td>
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<td>28</td>
<td>4</td>
<td>Bivariate relationships: Chapter 5; Simple linear regression: Chapter 6</td>
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<td>October</td>
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<td>Review Chapters 1 thru 6 for the MIDTERM;</td>
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<td>MIDTERM EXAM: Chapters 1 thru 6</td>
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<td>19</td>
<td>7</td>
<td>RETURN MIDTERMS; Probability fundamentals: Chapter 7; Theoretical probability distributions: Chapter 8</td>
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<td>26</td>
<td>8</td>
<td>The role of sampling: Chapter 9</td>
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<td>November</td>
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<td>9</td>
<td>Hypothesis testing using the z-test: Chapter 10</td>
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<td>Inferential tests on means: Chapter 11</td>
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<td>Inferential tests on means, cont'd: Chapter 11; One-Way ANOVA: Chapter 13</td>
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<td>November</td>
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<td>12</td>
<td>NO CLASS – Thanksgiving Break</td>
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<td>30</td>
<td>13</td>
<td>One-Way ANOVA, cont'd; Chapter 13; Introduction to Research Design: Chapter 12</td>
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<td>December</td>
<td>7</td>
<td>14</td>
<td>Research Design, cont’d: Chapter 12</td>
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<td>LAST CLASS; Review for the FINAL EXAM – Chapters 1 – 13; PROJECTS ARE DUE</td>
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<td>FINAL EXAM</td>
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