

**COURSE NAME:** Application of Statistics in Business Economics

**COURSE NUMBER:** 11:373:215

**SEMESTER:** Fall 2019

**MEETING DAYS, TIMES, AND PLACE:** T, TH 3:55PM – 5:15pm, HCK 213

**PREREQUISITE:** Any course EQUAL or GREATER than 01:640:111

**CONTACT INFORMATION:**

Instructor(s): Dr. Michael J. Camasso

Office Location: Cook Office Building, Room 110

Phone: 848-932-9129

Email: [mcamasso@sebs.rutgers.edu](mailto:mcamasso@sebs.rutgers.edu)

Office Hours: By Appointment

**COURSE WEBSITE, RESOURCES AND MATERIALS:**

**Text Book:**

Healey, Joseph F. (2008). *Statistics: A Tool for Social Research*, Eighth or Ninth Edition. New York: Wadsworth.

\*Edition 10 of the text is available at Barnes & Noble. You should try to get the Eighth Edition from Amazon if possible. The two editions are basically the same and the Tenth Edition is very expensive. \*

**COURSE DESCRIPTION:**

The purpose of this course is to develop skills in statistical analysis and computer techniques. Particular focus will be on applied descriptive and inferential statistics, including cross-tabulations and correlation and regression analysis, and on computer tools useful in business economics. The course will consist of lectures, weekly readings, problem sets and examinations. In addition, we will have two formal lab sessions and learn to use the statistical package Stata for Windows.

The course has three objectives: (1) to demonstrate the use of applied statistics for business applications, (2) to equip students with skills to analyze and interpret data using Stata, and (3) to help students read professional/business literature with an appreciation for the contribution made by technical (statistical) tools.

This course is intensive and will require serious attention. You should plan on attending every class session – this is particularly important for a quantitative methods course.

**LEARNING GOALS:**

- Student will learn the basic principles and assumptions underlying statistical analysis.
- Student will learn how to apply an array of parametric and non-parametric statistical methods to economic/business data.
- Students will learn how to present and interpret the results of statistical analyses for professional and non-professional audiences.

**ASSIGNMENTS/RESPONSIBILITIES, GRADING & ASSESSMENT:**

**Assignments and Responsibilities:**

- Participation in class. Students are expected to attend all classes.
- Completing three problem sets. Doing problem sets is the primary way of really understanding the material.
- A midterm exam and a cumulative final exam.

**Grading:**

The final grade will be computed as follows:

3 Problem Sets (10 percent each)	30 percent
Midterm Exam	30 percent
Final Exam	40 percent

It is important that exams be taken as scheduled. Please notify me if, for medical or other valid reasons, it is impossible for you to meet an examination or other deadline.

Grading scale will be as follows: A = 90% or above; B+ = 85-89%; B = 80-84%; C+ = 75-79%; C = 70-74%; D = 60-69%; F = Below 60%

**Cell Phones/Blackberries/Related Electronics:**

The use of these devices in class is disruptive to the teaching process. All devices must be turned off in class.

**ACCOMODATIONS FOR STUDENTS WITH DISABILITIES**

Please follow the procedures outlined at <https://ods.rutgers.edu/students/registration-form>. Full policies and procedures are at <https://ods.rutgers.edu/>

**ABSENCE POLICY**

Students are expected to attend all classes; if you expect to miss one or two classes, please use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. An email is automatically sent to me.

**COURSE SCHEDULE:**

Week 1	<b>Introduction to Course</b>	
Part I – Descriptive Statistics		
Week 2	<ul style="list-style-type: none"> <li>• Introduction to Statistics</li> <li>• Basic Descriptive Statistics</li> </ul>	Ch. 1 and 2
Week 3	<ul style="list-style-type: none"> <li>• Measures of Central Tendency</li> <li>• Measures of Dispersion</li> </ul>	Ch. 3 and 4
Week 4	<ul style="list-style-type: none"> <li>• The Normal Curve</li> <li>• <i>Problem Set 1 distributed</i></li> </ul>	Ch. 5
Part II – Inferential Statistics		
Week 5	<ul style="list-style-type: none"> <li>• Sampling and Sampling Distribution</li> <li>• Estimation Procedures</li> </ul>	Ch. 6 and 7
<i>PS #1 Due</i>		
Week 6	<ul style="list-style-type: none"> <li>• Stata Lab I</li> </ul>	
Week 7	<ul style="list-style-type: none"> <li>• Estimation Procedures (contd.)</li> <li>• One Sample Hypothesis Testing</li> </ul>	Ch. 8
Week 8	<b>Midterm Examination</b>	
Week 9	<ul style="list-style-type: none"> <li>• Two Sample Hypothesis Testing</li> <li>• Hypothesis Testing: Anova</li> <li>• Hypothesis Testing: Chi Square</li> <li>• <i>Problem Set 2 distributed</i></li> </ul>	Ch.9, 10 and 11
Part III – Measures of Association		
Week 10	<ul style="list-style-type: none"> <li>• Stata Lab II</li> <li>• Bivariate Association: Intro &amp; Basics</li> <li>• Measures of Association: Nominal Variables</li> </ul>	Ch. 12 and 13
Week 11	<ul style="list-style-type: none"> <li>• Measures of Association: Ordinal Variables</li> <li>• Measures of Association: Interval Variables</li> </ul>	Ch. 14 and 15
<i>PS #2 Due</i>		
Week 12	<ul style="list-style-type: none"> <li>• Stata Lab III</li> </ul>	Ch 16
<b>Part IV – Multivariate Techniques</b>		
<ul style="list-style-type: none"> <li>• Elaborating Bivariate Tables</li> <li>• <i>Problem Set 3 distributed</i></li> </ul>		
Week 13	<ul style="list-style-type: none"> <li>• Simple Linear Regression</li> </ul>	Ch. 17
Week 14	<ul style="list-style-type: none"> <li>• Multiple Linear Regression</li> </ul>	
<i>PS #3 Due</i> <b>Exam Week</b>	<b>Final Exam (Cumulative)</b>	

## **FINAL EXAM/PAPER DATE AND TIME**

Online Final exam Schedule: <http://finalexams.rutgers.edu/>

## **ACADEMIC INTEGRITY**

The university's policy on Academic Integrity is available at <http://academicintegrity.rutgers.edu/academic-integrity-policy>. The principles of academic integrity require that a student:

- properly acknowledge and cite all use of the ideas, results, or words of others.
- properly acknowledge all contributors to a given piece of work.
- make sure that all work submitted as his or her own in a course or other academic activity is produced without the aid of impermissible materials or impermissible collaboration.
- obtain all data or results by ethical means and report them accurately without suppressing any results inconsistent with his or her interpretation or conclusions.
- treat all other students in an ethical manner, respecting their integrity and right to pursue their educational goals without interference. This requires that a student neither facilitate academic dishonesty by others nor obstruct their academic progress.
- uphold the canons of the ethical or professional code of the profession for which he or she is preparing.

Adherence to these principles is necessary in order to ensure that

- everyone is given proper credit for his or her ideas, words, results, and other scholarly accomplishments.
- all student work is fairly evaluated and no student has an inappropriate advantage over others.
- the academic and ethical development of all students is fostered.
- the reputation of the University for integrity in its teaching, research, and scholarship is maintained and enhanced.

Failure to uphold these principles of academic integrity threatens both the reputation of the University and the value of the degrees awarded to its students. Every member of the University community therefore bears a responsibility for ensuring that the highest standards of academic integrity are upheld.

## **STUDENT WELLNESS SERVICES**

Just In Case Web App <http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901 / [www.rhscaps.rutgers.edu/](http://www.rhscaps.rutgers.edu/)

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / [www.vpva.rutgers.edu/](http://www.vpva.rutgers.edu/)

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

Scarlet Listeners

(732) 247-5555 / <https://rutgers.campuslabs.com/engage/organization/scarletlisteners>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.