

## Syllabus

### BA – “Data Analysis”

**Course Number:** BUS 390.2

**Number of Credits:** 6

**Prerequisites:** Math for Business and Economics I (MAT 132),  
Introductory Microeconomic Theory (ECO 112.1)

**Language of Instruction:** English

#### Course Goals or Purposes:

This course is designed to introduce undergraduate students to statistical and econometric methods of data analysis.

#### Course Description:

This is a research-intensive course that builds practical skills in data analysis critical for business functions. Course topics include numerical and graphical summaries of data, hypothesis testing, confidence intervals, analysis of variance, regression, and other econometric and statistical analysis. Upon completion of this course, students should have tangible skills in applied methods they can use in any business consulting or strategy role.

#### Course Objective:

- Introduce scientific tools for analysing data.
- Evaluate data to make conclusions.
- Use data analysis for decision making.

#### Course Student Learning Outcomes:

- Interpret data according to the scientific method.
- Present data graphically.
- Analyze data distribution.
- Determine trends and correlations within data sets.

### Academic Dishonesty:

As defined, academic dishonesty is a "failure to maintain academic integrity" Failing to maintain academic integrity includes obtaining or giving help on an examination, doing work for another student, and plagiarism.

Plagiarism is a serious issue in academic settings. There is a general rule for avoiding plagiarism: never attempt to pass off another's work as your own. More specific guidelines are:

- Do not copy words from any source without quoting and citing that source. The quotation should be reproduced in the exact manner in which the quote is taken.
- Do not use the ideas, concepts or opinions from any source without citing that source. Included are key terms, technical concepts and original views.
- Paraphrasing is acceptable; however, one must take care to cite the source and not misrepresent the original thesis. Paraphrasing often is the area in which most charges of plagiarism result.

Students are expected to maintain high ethical standards in all their courses. All cases of academic dishonesty will result in a failing grade and will be referred to the Chair, Business Administration department for administrative review.

### Academic Policies:

Academic Policies are not course specific and therefore are created and maintained separately from this syllabus. One may examine AUCA Academic Policies in the AUCA Code of Conduct.

### Course Materials:

Item	Author(s)	Reference
1	Cooper, D.R., and Schindler, P.S. (1998)	Business Research Methods (5th ed.). Irwin Mc-Graw Hill
2	Kvanli A.H. (1989)	Introduction to Business Statistics
3	Kydyraliev S.K., Urdaletova A.B., Kasymov A.E., and Kydyralieva K.S. (2012)	Intro to Corporate Finance & Investments: Mathematical Approach
4	Кыдыралиев С.К., Урмамбетов Б.М. (2006)	Сборник Заданий по Современной Статистике

### Overall Course Grading:

The grading scale, which is standard in the Business Administration department, is as follows:

A	100 - 93	C	76 - 73
A-	92 - 90	C-	72 - 70
B+	89 - 87	D+	69 - 67
B	86 - 83	D	66 - 63
B-	82 - 80	D-	62 - 60
C+	79 - 77	F	59 - 0

Grade Component	Percent
Attendance/ Participation	10
Quiz 1	10
Quiz 2	30
Group Presentation 1	20
Group Presentation 2	30
<b>Total</b>	<b>100%</b>

In order to receive full credit, assigned work must be submitted before the scheduled submission deadline. Therefore, students keeping up with the course work and submitting assignments on time is essential. *Late assignments will not be accepted for grading.* If commitments make submitting assignments on schedule impossible, students must consult with the professor at least ten days in advance to make other arrangements. Failure to plan on your part does not constitute an emergency on our part.

**In Class and Quizzes Requirements:**

- No cell phones (turn them off).
- Bring calculators to classes. Some classes might require a laptop per group.
- You are not allowed to leave the room during the quizzes.
- Be sure to bring your own calculator, pen, pencil, etc. for the quizzes. You won't be allowed to use your classmate's one.

**Make-up Quizzes:**

- If the reason for missing Quiz 1 is valid, the student's Quiz 2 will be worth up to 37 points. In this case extra tasks can be included in Quiz 2.
- If the reason for missing Quiz 2 is valid, the student's make-up Quiz 2 will be worth up to 24 points. In this case extra tasks can be included in Quiz 2.
- If the reason for missing a quiz is not valid, then the grade 0 will be given for the missed quiz.
- If the reason for missing any class is valid, the instructor should be notified and documentary evidence should be provided within a week of the missed class. Otherwise the reason is considered to be invalid.

**Changes:**

The course instructors reserve the right to modify any and all portions of this syllabus at any time during the period of the course. Any modifications will be communicated to students.

## Tentative Schedule with due dates for assignments

Week	Topic	Readings Assignment
1	Average Values	Kydyraliev et al. (2012). Intro to Corporate Finance & Investments: Mathematical Approach. § 2.6
2	Measures of Spread	Kydyraliev et al. (2012). Intro to Corporate Finance & Investments: Mathematical Approach. § 2.6
3	Graphical Summaries of Data	Sperrin M., and Park, J. (2008). Summarising Data Numerically and Graphically
4	<b>Quiz 1</b>	
5	Probabilities	Kvanli A.H. (1989). <i>Introduction to business statistics</i> . Ch. 4.1-4.5
6	Distributions	Kvanli A.H. (1989). <i>Introduction to business statistics</i> . Ch. 6.1-6.5
7	Confidence Intervals	Kvanli A.H. (1989). <i>Introduction to business statistics</i> . Ch. 7.3
8	Hypothesis Testing	Cooper, D.R., and Schindler, P.S. (1998). <i>Business Research Methods</i> (6th ed.). Ch. 16
9	<b>Quiz 2</b>	
Spring Break		
10	Turning Data into Stories	
11	Tableau	
12	<b>Presentation 1</b>	
13	Linear Regression	Cooper, D.R., and Schindler, P.S. (1998). <i>Business Research Methods</i> (6th ed.). Ch. 17
14	Multiple Regression	Cooper, D.R., and Schindler, P.S. (1998). <i>Business Research Methods</i> (6th ed.). Ch. 18
15	<b>Presentation 2</b>	