<table>
<tr><td rowspan="8">Identification</td><td>Subject</td><td colspan="2">BSA 215 Statistical Methods for Economics and Business– 3KU/6ECTS credits</td></tr>
<tr><td>Program</td><td colspan="2">Undergraduate</td></tr>
<tr><td>Department</td><td colspan="2">School of Economics and Management</td></tr>
<tr><td>Term</td><td colspan="2">Fall Semester of 2023</td></tr>
<tr><td>Instructor</td><td colspan="2">Leyla Bayramova</td></tr>
<tr><td>E-mail</td><td colspan="2">leyla.mustafayeva.96@bk.ru,
mustafayevaleyla@khazar.org</td></tr>
<tr><td>Classroom/hours</td><td colspan="2">Wednesday: 13:40-15:10, 15:20-16:50</td></tr>
<tr><td>Language</td><td colspan="2">English</td></tr>
<tr><td>Prerequisites</td><td colspan="3">MATH 215</td></tr>
<tr><td>Compulsory/ Elective</td><td colspan="3">Compulsory</td></tr>
<tr><td>Textbooks and course materials</td><td colspan="3">1) Paul Newbold, William L.Carlson and Betty M.Thorne ``<b>Statistics for Business and Economics''</b>, 8th edition, 2013. (NW)<br>2) Levine, Krehbiel, Berenson, ``Business Statistics: A First Course``, 5th edition, 2010.
3) Basic Statistics for Business and Economics, Douglas A. Lind, William G. Marchal, Samuel A. Wathen, Published by McGraw-Hill Education, 2013

Supplementary book:

Statistics for Managers Using Microsoft Excel by D. Levine, D.Stephan, T.Krehbiel, M.Berenson, 6th edition, 2011.</td></tr>
<tr><td rowspan="8">Grading System</td><td colspan="2">Methods</td><td>Percentage (%)</td></tr>
<tr><td colspan="2">Midterm Exam</td><td>30</td></tr>
<tr><td colspan="2">Group Project</td><td></td></tr>
<tr><td colspan="2">Quizzes</td><td>20</td></tr>
<tr><td colspan="2">Activity</td><td>5</td></tr>
<tr><td colspan="2">Attendance</td><td>5</td></tr>
<tr><td colspan="2">Final Exam</td><td>40</td></tr>
<tr><td colspan="2">Total</td><td>100</td></tr>
<tr><td>Course objective and content</td><td colspan="3">The first course in the core statistics sequence cover topics in Probability Theory and Mathematical Statistics. The main purpose of these courses is to provide you with a foundation of statistics and probability. The tools learned in these courses are essential building blocks for the other econometrics' courses in the sequence. Focus in these courses will be on basic principles, including among other things: probability, random variables, conditional probability, probability densities and distributions, characteristic functions, test statistic formulation and distribution theory, statistical inference, and basic regression. Emphasis will be placed on applied problem solving using the tools learned in the class.</td></tr>
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Learning Outcomes	After this course, students will be able to calculate descriptive and numerical measures and probabilities based on both sample and population datasets to make initial inferences about population parameters. Furthermore, they will acquire skills to test population parameters by using Hypothesis testing based on sample observations. During the lectures, students will obtain insights about the involvement of statistical methods in real business and economic applications.
Policy	- **Quiz** Quiz will worth 20% of final grade. It is planned to hold in the fourth, tenth and thirteenth week of Semester. It is planned to be conducted on university if education is face to face and will be consists of Multiple-choice and open questions. Exam time will be 60 minutes. Further details about quiz will be communicated by Instructor. - **Attendance Policy** 5 % of final grade will be given for class attendance. Students should attend all classes. The proof of reason for unavoidable absence must be provided by student. In this case, the absence will not be resulted with grade subtraction. Students should come to the classes on time. Late arrival more than 15 minutes will be resulted as absence on the attendance sheet. In case of late arrival, student must inform Instructor in advance. **Important Note: If the student miss 25% of all classes during the semester, he or she will not be allowed to participate in examination.** - **Class participation in this course:** 5% of the final grade will be given for class participation. It is required from students to contribute to the class discussion and actively participate in team works. The quality of contribution will be the main factor not the quantity of contribution.
Academic Dishonesty	Students are expected to conduct themselves in a professional manner. Academic dishonesty such as plagiarism and cheating will not be tolerated. Therefore, students are expected to be honest and ethical in their academic work. Cases of academic dishonesty will be immediately reported to the Director's office for disciplinary action.
Office Hours	The instructor will be available to consult with students regarding class related questions regularly by appointment. Meetings with students outside office hours should be scheduled in advance by sending an e-mail to the instructor.

Week	Date/Day (Tentative)	Topics	Textbook/Assignments
1	20.09.23 20.09.23	Introduction to Statistics. Basic definitions and terminologies	**Chapter 1 (NW)**
2	27.09.23 27.09.23	Using Graphs to Describe Data	**Chapter 1 (NW)**
3	04.10.23 04.10.23	Using Numerical Measures to Describe Data	**Chapter 2 (NW)**
4	11.10.23 11.10.23	Elements of Chance: Probability Methods	**Chapter 3 (NW)** **(Quiz1)**
5	18.10.23 18.10.23	Conditional Probability and Bayes Theorem	**Chapter 3 (NW)**
6	25.10.23 25.10.23	Discrete Probability Distributions	**Chapter 4 (NW)**
7	01.11.23 01.11.23	Continuous Probability Distribution **Midterm exam**	**Chapter 5 (NW)**
8	08.11.23 08.11.23	Holiday	**Chapter 6 (NW)**
9	15.11.23 15.11.23	Sampling Distribution of Sample Means Sampling Distribution of Sample Proportion	**Chapter 6 (NW)**
10	22.11.23 22.11.23	Confidence Interval Estimation of Unknown Population Mean	**Chapter 7 (NW)** **(Quiz 2)**
11	29.11.23 29.11.23	Confidence Interval Estimation of Unknown Population Mean when population variance in unknown	**Chapter 7 (NW)**
12	06.12.23 06.12.23	Confidence Interval Estimation: Further Topics	**Chapter 8 (NW)**

13	13.12.23 13.12.23	Hypothesis Tests of Single Population	**Chapter 9 (NW) (Quiz 3)**
14	20.12.23 20.12.23	Analysis of variance. Linear regression correlation analysis	**Chapter 10 (NW)**
15	27.12.23 27.12.23	Multiple regression analysis	**Chapter 11 (NW)**
	TBA	**Final Exam**	

This syllabus is a guide for the course and any modifications to it will be announced in advance.