

Instructor: Raid Anabosi  
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Online Hours: UTR 8:00 AM – 9:50 AM or by appointment.

Text and Package:
2. MINITAB Statistical Package will be used.
3. Scientific calculator with statistical functions in every class and exam.

Course Objectives:
Introducing basic concepts of probability and statistics to business students. Emphasis will be given on the understanding of the nature of randomness of real world problems, the formulation of statistical methods by using intuitive arguments and thereby making meaningful decisions.

Assessment:
Assessment for this course will be based on homework, attendance, two Major exams and a final exam, as following:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Attendance, Homework, and Labtest</td>
<td>2% + 3% + 5%</td>
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</tbody>
</table>
| Exam 1 (Chapters 9 & 10)  
Wednesday Feb 17, 17:45 – 19:00 in OAB | 15% |
| Exam 2 (Chapters 12 & 13)  
Wednesday March 23, 18:00 – 19:15 in OAB | 20% |
| Exam 3 (Chapters 14 & 15)  
Wednesday April 20, 18:15 – 19:30 in OAB | 20% |
| Final Exam (Comprehensive)  
Tuesday | 35% |

General Notes:
- Students are required to carry pens, binder and a calculator with statistical functions to EVERY lecture, quiz, and exam.
- Students are also expected to take class notes and organize their learning material in a binder for easy retrieval to help them in study and review for class, exams, etc. It is to the student’s advantage to keep a binder for storing class notes, homework, and other graded assignments. Students who are organized will find it easier to find important materials when studying for exams.
- To effectively learn statistics, students need to solve problems and analyze data. The selected assigned problems are specifically designed to prepare you for class quizzes, lab, majors and final exam. So, it is expected that you complete these problems step-by-step and with comprehension.
- Never round your intermediate results to problems when doing your calculations. This will cause you to lose calculation accuracy. Round only your final answers and you should not round less than 4 decimal places unless required otherwise.
- A formula sheet and statistical tables will be given for you in every exam, so you only need to bring with you pens, pencils, a sharpener, an eraser, and a calculator.
<table>
<thead>
<tr>
<th>Week</th>
<th>Sections</th>
<th>Topics</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9.1-9.2</td>
<td>Hypothesis Tests for Means</td>
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<tr>
<td>2</td>
<td>9.3, 9.4, 9.6</td>
<td>Hypothesis Tests for Means (continued), Tests for Proportions</td>
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<tr>
<td>3</td>
<td>10.1, 10.2,</td>
<td>Tests for the Difference Between Two Means</td>
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<tr>
<td>4</td>
<td>10.3, 10.4,</td>
<td>Tests for Two Populations Proportions, F-Tests for Two Population Variances, Chi-squared Test for One Population Variances</td>
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<tr>
<td>5</td>
<td>12.1-12.2,12.4</td>
<td>Chi-squared Tests for Proportions</td>
<td>Major 1 – Feb. 17 17:45 – 19:00 (OAB)</td>
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<tr>
<td>6</td>
<td>12.3, 12.10</td>
<td>Introduction to Contingency Tables, Goodness of Fit Tests, Review</td>
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<tr>
<td>7</td>
<td>13.1-13.3</td>
<td>Simple Linear Regression</td>
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<td>8</td>
<td>13.4-13.9</td>
<td>Simple Linear Regression (continued), Correlation, Inferences and Uses for Regression Analysis</td>
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<td></td>
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<td><strong>Midterm Vacation (13 – 17 March)</strong></td>
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<tr>
<td>9</td>
<td>14.1-14.4</td>
<td>Introduction to Multiple Regression Inferences on coefficients, Model testing</td>
<td>Major 2 – March 23 18:00 – 19:15 (OAB)</td>
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<tr>
<td>10</td>
<td>14.5-14.6</td>
<td>Model testing (cont.) &amp; Multiple Regression with Qualitative Variables</td>
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<tr>
<td>11</td>
<td>15.1, 15.3,</td>
<td>Nonlinear Relationships, Model Building</td>
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<td></td>
<td>15.4, 15.5</td>
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<tr>
<td>12</td>
<td>15.6, 16.1-16.3</td>
<td>Aptness of the Model, Introduction to Time-Series Forecasting, Component Factors of Time-Series, and Smoothing Techniques</td>
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<tr>
<td>13</td>
<td>16.4-16.6</td>
<td>LS Trend Fitting, Autoregressive Modeling for Trend Fitting and Forecasting, Choosing an Appropriate Model</td>
<td>Major 3 – April 20 18:15 – 19:30 (OAB)</td>
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<tr>
<td>14</td>
<td>16.7, 16.8</td>
<td>Time-Series Forecasting of Seasonal Data, Index Numbers</td>
<td>Lab Test – April 28 Class time in 5-202</td>
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<tr>
<td>15</td>
<td>16.8</td>
<td>Index Numbers (cont.) &amp; Review</td>
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**Important Notes:**

- Students will be required to carry a scientific calculator with statistical functions to every class, quiz, and exam.
- We will explain the MINITAB commands in the class and the student free to do his homework any were he likes.
- In accordance with University rules, Nine (9) unexcused absences will automatically result in a grade of DN. It is students’ responsibility to provide valid written excuses on time before a DN report is issued.
- Attendance on time is very important. Therefore, $\frac{1}{2}$ % will be reduced for each one absence
- Mostly, attendance will be checked within the first five minutes of the class. Entering the class after that, is considered as one late, and every two lateness equal to one absence.
- All contacts or announcements between the instructor and the students are supposed to be held on Blackboard, so the student must check his Blackboard inbox at least once a day.
- **Quizzes:** In general, there will be a quiz at the end of every chapter.

**Home Work Problems:**

- The Homework should be submitted the first Sunday after completing the chapter and no need for an announcement in advance.
- No late homework will be accepted.
- Chapter 10: 10.2, 10.10, 10.13, 10.19, 10.25, 10.26, 10.31, 10.33, 10.36, 10.39, 10.41, 10.45, 10.49, 10.52
- Chapter 12: 12.1, 12.3, 12.7, 12.13, 12.15, 12.19, 12.21, 12.13, 12.25, 12.27, 12.31, 12.33, 12.35, 12.41, 12.45
- Chapter 15: 15.1, 15.3, 15.7, 15.15, 15.19, 15.21, 15.25

**Student Learning Outcomes:**

Students are expected to

- Know the correspondence between levels of measurement and statistical procedures.
- Know the assumptions underlying statistical procedures.
- Select the appropriate statistical procedure for various applied business situations.
- Accurately compute procedures manually and by MINITAB and interpret the results of these statistical procedures.
- Finally, make the right decision.