

| <b>BUS 120 - Math Applications for Business<br/>Fall 2009</b> |  |                               | <b>Professor<br/>Guillermo Ortiz</b>         |
|---|--|-------------------------------|--|
| <b>Date</b>   | <b>Anticipated Topic</b>   | <b>Reading<br/>Assignment</b> | <b>Assignments Due</b>                       |
| 20-Aug  | Introduction   |                               |  |
| 25-Aug  | Sets & Applications of Venn Diagrams                                       | Section 8.1<br>Section 8.2    | 8.1–29, 31, 37; 8.2–21                       |
| 27-Aug  | Applications of Venn Diagrams<br>Introduction to Probability               | Section 8.2<br>Section 8.3    | 8.2–35<br>8.3–8, 19, 23, 28, 35              |
| 1-Sep   | Basic Concepts of Probability  | Section 8.4                   | 7, 9, 10, 13, 15, 57, 65                     |
| 3-Sep   | Conditional Probability and<br>Independent Events                          | Section 8.5                   | 1, 3, 5, 7, 21, 31, 37, 39, 43, 55, 61       |
| 8-Sep   | Bayes' Formula   | Section 8.6                   | 1, 13, 21, 29, 31                            |
| 10-Sep  | Probability Distributions and Expected Value                               | Section 9.1                   | 1, 5, 9, 15, 21, 37                          |
| 15-Sep  | Permutations and Combinations  | Section 9.2                   | 3, 11, 24, 28, 30, 38, 40, 47, 48, 57,<br>59 |
| 17-Sep  | Applications of Counting   | Section 9.3                   | 1, 5, 13, 25, 29                             |
| 22-Sep  | Binomial Probability   | Section 9.4                   | 1, 7, 13, 24, 31                             |
| 24-Sep  | Decision Making  | Section 9.6                   | 1, 3, 5                                      |
| 29-Sep  | <b>Exam 1 - Probability</b>  |                               |  |
| 1-Oct   | Rates of change using graphs   |                               |  |
| 6-Oct   | Equations<br>Rates of change using equations                               |                               |  |
| 8-Oct   | Slope and rate of change<br>Limits   | Section 11.2                  |  |
| 13-Oct  | Rates of Change  | Section 11.3                  | 3, 15, 27, 31                                |
| 15-Oct  | Tangent Lines and Derivative   | Section 11.4                  | 11, 19, 27, 31, 35                           |
| 20-Oct  | Techniques for Finding Derivatives<br>Derivative of Products and Quotients | Section 11.5<br>Section 11.6  | 11.5–5, 15, 61<br>11.6–1, 11, 35             |
| 22-Oct  | The Chain Rule   | Section 11.7                  | 31, 63                                       |

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| 27-Oct  | Continuity and Differentiability<br>Derivative and Graphs | Section 11.9<br>Section 12.1  | 11.9–11, 21, 25<br>12.1–7, 12, 17, 19 |
| 29-Oct  | Derivative and Graphs                                     | Section 12.1                  | 19, 49, 69                            |
| 3-Nov   | The Second Derivative                                     | Section 12.2                  | 1, 33, 34, 51, 55                     |
| 5-Nov   | Optimization Applications                                 | Section 12.3                  | 4, 34                                 |
| 10-Nov  | <b>Exam 2 - Rates of Change &amp; Derivative</b>          |                               |                                       |
| 12-Nov  | <b>No Class</b>   |                               |                                       |
| 17-Nov  | Simple Interest and Discounting                           | Section 5.1                   | 3, 7, 17, 23, 25, 33, 39, 41          |
| 19-Nov  | Compound Interest and Discounting                         | Section 5.2                   | 7, 9, 13, 19, 21, 23, 27              |
| 24-Nov  | Compound Interest and Discounting                         | Section 5.2                   | 31, 35, 39, 43, 46, 55, 57            |
| 26-Nov  | <b>Thanksgiving</b>                                       |                               |                                       |
| 1-Dec   | Future Value of an Annuity and Sinking Funds              | Section 5.3                   | 27, 29, 41, 49, 52                    |
| 3-Dec   | Future Value of an Annuity and Sinking Funds              | Section 5.3                   | 54, 55, 61, 63                        |
| 8-Dec   | Present Value of an Annuity and Amortization              | Section 5.4                   | 11, 12, 17, 20, 27                    |
| 10-Dec  | Present Value of an Annuity and Amortization              | Section 5.4                   | 37, 39, 45, 47, 48                    |
| 17-Dec  | <b>Exam 3 - Mathematics of Finance</b>                    |                               | <b>8:10 - 10:40</b>                   |