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| **Course Syllabus of Stat 205/Math 2205** | |
| **Section B: Sunday & Wednesday (03:35 PM – 05:05 PM), Room # 0405**  **Section C: Sunday & Wednesday (09:00 AM – 10:30 AM), Room # 0424**  **Section D: Saturday & Tuesday (02:00 PM – 03:30 PM), Room # 0330** | |
| **Text Books** | 1. **Probability and Statistical Inference** – Hogg, Tanis and Zimmerman. 2. **Schaum’s Outlines (3rd & 4th Edition)** 3. **Fundamentals of Mathematical Statistics** – Gupta and Kapoor. |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Class** | **Topics/Assignments** | **COs** | **Reading Reference** | **Lecture Outcomes/Activities** |  | | **1-4** | Elementary probability theory, Conditional probability, Bayes’ theorem. | 1 | Chapter 1 (HTZ)  1.1, 1.3, 1.4, 1.5 | Q/A  Test,  Assignment | | **5-8** | Discrete Random Variables and discrete distributions. | 2 | Chapter 2 (HTZ)  2.1, 2.2, 2.3, 2.4, 2.6 | Q/A  Test,  Assignment | | **9-11** | Continuous Random Variables and continuous distributions. | 2 | Chapter 3 (HTZ)  3.1, 3.2, 3.3 | Q/A  Test,  Assignment | | **12** | Review Class | | | | | **Mid Term Examination** | | | | | | **13-15** | Frequency distribution. Measures of central tendency and measures of dispersion. Moments, skewness and kurtosis. | 3 | Chapter 4 & 5 (GK) | Q/A  Test,  Assignment | | **16** | Correlation-Regression | 3 | Chapter 10 (GK) | Q/A  Test,  Assignment | | **17-18** | Point Estimation: Order Statistics, Maximum Likelihood Estimation, Bayesian Estimation. | 4 | Chapter 6 (HTZ)  6.3, 6.4, 6.8 | Q/A  Test,  Assignment | | **19-20** | Interval estimation. | 4 | Chapter 7 (HTZ)  7.1, 7.3 | Q/A  Test,  Assignment | | **21-23** | Hypothesis testing. | 5 | Chapter 8 (HTZ)  8.1, 8.3, 8.5 | Q/A  Test,  Assignment | | **24** | Review Class | | | | | **Final Examination** | | | | | | |

**\*\*\* Some Important Dates: 5th class (CT-1), 9th class (CT-2), 17th class (CT-3), 21st class (CT-4)**