**Assignments MA 404 Fall 2023. Dr. Gary Guthrie** **gguthrie@bju.edu** **864-643-8212**

 From the text: ***Freund's Mathematical Statistics*** ; Eighth Edition; Miller and Miller; Prentice Hall

All dates for tests are approximate and are subject to adaptation based on the class:

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| **Chapter** | **Assignment** | **Details** |
| **Aug 30****Proj 1 Due** | Project 1 – Descriptive stats | Use the data provided and run and present descriptive stats using Megastat, R, or SPSS. Your write up must be in Word. You must come to a conclusion on each part and overall.  |
| **Sept 4 Proj 2 Due** | Project 2 – Inferential Stats | Use above data and test, using inferential stats, your conclusions. |
| **1C****Chapter 1****Sept 8** | a.  Read – Chapter and do the examples b.  Presentations by students      Occupancy theory  \_\_\_\_\_\_\_\_\_\_\_\_\_\_      Binomial theorem     \_\_\_\_\_\_\_\_\_\_\_\_\_\_     c .  HW d.  Test – chapter 1  | a.  Read chapter 1 b. Occupancy ex 8-10, 48-57    Binomial  ex 5,11,13-23 c.  ex 1-4, 24-47,  d.  Hour test (hand in completed HW) |
| **Chapter 2****Sept 25** | a.  Read – Chapter and do the examples b.  Quiz on Probability Rules c.  Presentations by students      Birthday Problem     \_\_\_\_\_\_\_\_\_\_\_\_\_\_      Yatzee and Rook      \_\_\_\_\_\_\_\_\_\_\_\_\_\_      Reliability                  \_\_\_\_\_\_\_\_\_\_\_\_\_\_ d.  HW   e.  Program your TI 89 f.  Test – chapter 2 | a.  Read ch 2 b.  Five minute quiz c.       Birthday program on TI 89     Yatzee ex 63     Reliability ex 113 - 120 (odd) d  1a, 2, 3, 7, 11,15, 18, 19, 22,23, 24,25,    30,42,43, 51,53, 55,59,61,63,65,67,71,75,    79,81,89,91,93 e.  Ex 85,86 f.  Hour test (hand in completed HW and program) |

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| **chapters****3,4,5,6****Oct 18****Oct 20** | a.  Discrete Uniform, Binomial and Bernoulli  b.  discrete Geometric, Hypergeometric and      Poisson c.  Presentations by students      Hypergeometric     \_\_\_\_\_\_\_\_\_\_\_\_\_\_ d.  Continuous Uniform, Exponential and     Normal   e.  General case  f.  Presentations by students      Chebychev’s ineq.     \_\_\_\_\_\_\_\_\_\_\_\_\_\_ g. Review of means variance, MGF etch.  Test on above | a. Read Ch 5: sections 1 - 4    HW Ch 5: 41,44,49,52,53,54 b.& c.  Read Ch 5: section 5 - 8    HW Ch 5: 57, 59, 60, 61,65,69,75,81  Program the hypergeometric  d.  Read Ch 6: sections 1,2 (Unif), 3 (Just Exponential), 5,6 (normal and normal approx. to Binomial)     HW ch 6:odd 51-87 that are unif or exp or normal e. Read Ch 3 and 4 and do examples    HW  Ch 4: application 1-55 odd f.  Read Ch 4: section 4 g. From Ch 4 sections 2-5h. Hour test (hand in completed HW) |
| **8****Nov 3** | Sampling distribution a.  Theory - distribution of the mean b.  Presentations by students      CLT     \_\_\_\_\_\_\_\_\_\_\_\_\_\_ c.  Statements of other distribution (theory left for second semester) d.  30 minute quiz on above |  a. - c. Read Ch 8: sections 2,5,6 for statements of                                         theory           HW ch 8: ex 63, 66,  67, 69, 71, 73,                                  75, 79, 81   d.  Quiz (hand in completed HW) |
| **13****Nov 17** | a.  Read hypothesis testing     Use program hypothesis testing on TI 89 b.  Test chapter 13 | a.  Read chapter 13     HW chapter 13 exercises applications             odd – English is requiredb.  Hour test (hand in completed HW) |
| **11****Nov 29** | a.  Read confidence intervals     Derive confidence intervals     Use program confidence intervals on TI 89 b.  Test chapter 11 | a.  Read chapter 11     HW chapter 11 exercises applications              odd – English is required b.  Hour test (hand in completed HW) |
| **Computer** **Dec 6** | a.  ANOVA (just statement)b.  Regression (just statement)c.  Contingency (just statement) | Part of your project |
| **Final** |  Dec 11-14 | 150 points |

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