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Course Outline

Summer, 2013

**Title:** Statistical Methods I

**Instructor:** Douglas A. Penfield(732-932-7496 x8324) - Rm. 324 (GSE)  
E-mail: douglas.penfield@gse.rutgers.edu

**Time:** MWF 6:00-9:55 PM      **Place:** Murray Hall - 113

**Book:** Introduction to the Practice of Statistics (7th. ed.)  
Moore, McCabe and Craig  
W. H. Freeman and Company

SPSS 19.0 for Windows - Student Version

Schedule of Lectures

- May 29** Introduction, Distributions, Graphing, Descriptive Statistics  
(Chap. 1, Sect. 1.1-1.2)
- May 31** Normal Distribution Theory, Normal Quantile Plots  
(Chap. 1, Sect. 1.3)
- June 03** Scatterplots, Correlation, Linear Regression  
(Chap. 2, Sects. 2.1-2.3)
- June 05** Residuals & Outliers, Two-Way Tables, Causation, Experimental Design,  
(Chap. 2, Sects. 2.4-2.6; Chap. 3, Sect. 3.1)
- June 07** Sampling, Sampling Distributions, Randomness, Probability  
(Chap. 3, Sects. 3.2-3.3; Chap. 4, Sects. 4.1-4.2)
- June 10** **Midterm** (90 minutes) [**Covers Chapters 1-3**]  
Random Variables, Means & Variances of Random Variables  
(Chap. 4, Sects. 4.3-4.4)
- June 12** Probability Rules, Sampling Distributions of Means  
(Chap. 4, Sect. 4.5; Chap. 5, Sect. 5.1)
- June 14** Sampling Distribution of Counts and Proportions, Confidence Intervals  
(Chap. 5, Sect. 5.2; Chap. 6, Sect. 6.1)

**June 17** Hypothesis Testing, Z-Test  
(Chap. 6, Sects. 6.2-6.3)

**June 19** Type I Error, Type II Errors, Power, Review  
(Chap. 6, Sect. 6.4)

**June 21** **Final (Covers Chapters 4-6)**

HOMEWORK

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Douglas A. Penfield

Summer, 2013 Dates

- May 29 Pages 22-28 (1.2, 1.3, 1.4, 1.5, 1.16, 1.19(Computer),  
1.33, 1.34, 1.37(Computer) (Turn in on 5/31), 1.39,  
1.43(a,b,c) (Computer))
- May 31 Pages 46-50 (1.48, 1.51, 1.52, 1.55, 1.56, 1.69(Computer),  
1.75, 1.77, 1.82(Computer), 1.88)  
Pages 69-74 (1.101, 1.103, 1.104, 1.105, 1.110, 1.119,  
1.122, 1.126, 1.131, 1.151)
- June 03 Pages 94-101 (2.1, 2.7, 2.13, 2.24(Computer), 2.27,  
2.29)  
Pages 105-108 (2.48(Computer), 2.53(Computer), 2.60)  
Pages 119-122 (2.66(Computer), 2.77,  
2.78(a,c) (Computer) (Turn in on 6/05), 2.84)
- June 05 Pages 133-136 (2.92, 2.93, 2.100(Computer),  
2.102(Computer))  
Pages 146-148 (2.115, 2.116, 2.119, 2.125, 2.130)  
Pages 153-154 (2.135, 2.137, 2.142)  
Pages 184-188 (3.18, 3.19, 3.32)
- June 07 Pages 198-201 (3.52, 3.53, 3.68, 3.74)  
Pages 211-213 (3.82, 3.83, 3.84, 3.86)  
Pages 245-248 (4.12, 4.13, 4.16, 4.25-4.29)
- June 10 Pages 257-259 (4.46, 4.54, 4.55, 4.56)  
Pages 275-278 (4.67, 4.71, 4.75, 4.76, 4.83 (a,b))
- June 12 Pages 290-293 (4.95, 4.96, 4.97, 4.107, 4.108, 4.109,  
4.113, 4.118)  
Pages 308-312 (5.1, 5.2, 5.4, 5.6, 5.7, 5.18, 5.20)
- June 14 Pages 333-337 (5.41, 5.43, 5.45, 5.47, 5.62)  
Pages 357-360 (6.5, 6.6, 6.7, 6.10, 6.22, 6.28(Computer))
- June 17 Pages 378-381 (6.36, 6.38, 6.40, 6.41, 6.43, 6.51, 6.52,  
6.56, 6.69)  
Pages 387-388 (6.84, 6.87, 6.93)

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