### Tentative Lecture Topics

**January 20**
- Introductory remarks; myriad definitions; breathing some excitement into an extremely dry subject; descriptive statistics and inferential statistics

**February 3**
- Probability; more definitions of mutually exclusive events; independence; conditional probability

**February 10**
- Probability distribution; more definitions; discrete random variables; discussion of various kinds of distributions

**February 17**
- Two Random Variables; bivariate distributions; functions of two random variables; covariance and correlation

**February 24**
- Start Part II of Book: Basic Inference; Estimating Means; Random Sampling; moments of the sample mean.

### Suggested Reading Assign.

- **January 20**: Chaps. 1, 2
  - (P. 19) 1, 2, 3, 4, 5, 6, 10
  - 11 (a), (b)

- **February 3**: Chaps. 2 and work problems
  - (P. 25) 12, 13
  - (P. 31) 15, 18, 22, 23

- **February 10**: Chap. 3 and work problems
  - (P. 38) 3
  - (P. 50) 5, 6, 7, 8, 12
  - (P. 59) 17, 18
  - (P. 64) 27-30

- **February 17**: Chap. 4 and work problems
  - (P. 76) 2, 3, 4
  - (P. 81) 6-9
  - (P. 86) 12, 16
  - (P. 99) 19(a), (b), (c), 21, 22
  - (P. 103) 23, 27, 28

- **February 24**: Chap. 5 and work problems
  - (P. 117) 2
  - (P. 121) 4, 5
  - (P. 126) 8, 10, 12
  - (P. 131) 15-18

**Review for Exam I** will be held on Tuesday, 24 February 1981.
**Exam I** will be held on Thursday, 26 February 1981.
**Coverage of exam**: Chapters 1-5
<table>
<thead>
<tr>
<th>Week of:</th>
<th>Tentative Lecture Topics</th>
<th>Suggested Reading Assign.</th>
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</thead>
<tbody>
<tr>
<td>March 3</td>
<td>Random Sampling; the Central Limit Theorem</td>
<td>Chap. 6 and work problems&lt;br&gt;(P. 149) 3,4&lt;br&gt;(P. 155) 7-11&lt;br&gt;(P. 171) 20-23</td>
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<td>Note: Discussion of term paper will be on Tuesday, 3 March 1981</td>
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<tr>
<td>10</td>
<td>Point estimation; population and samples; desirable properties of estimators; unbiasedness; efficiency consistency, and sufficiency</td>
<td>Chap. 7 and work problems&lt;br&gt;(P. 185) 2,3,4,8&lt;br&gt;(P. 197) 15</td>
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<td>17</td>
<td>Interval estimations</td>
<td>Chap. 8 and work all problems</td>
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<td>24</td>
<td>Indulging in the Unearthly Delights of Spring Break&lt;br&gt;Look at Ch. 9 while you are relaxing</td>
<td>Chap. 9 and work problems&lt;br&gt;(P. 245) 2&lt;br&gt;(P. 251) 4&lt;br&gt;(P. 257) 10,11,14</td>
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<td>31</td>
<td>Hypothesis testing</td>
<td>Chap. 9 and work problems&lt;br&gt;(P. 262) 16,17 (P. 273) 23</td>
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<td>Apr. 7</td>
<td>Review of Exam II will be held on Tuesday, 9 April 1981.&lt;br&gt;Exam II will be held on Thursday, 11 April 1981.&lt;br&gt;Coverage of exam: Chapters 6-9</td>
<td>Chap. 11 and work problems&lt;br&gt;(P. 326) 1-5</td>
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<td>14</td>
<td>Start Part III: Relating Two or More Variables; Fitting a Line; least squares solution</td>
<td>Chap. 12 and work problems&lt;br&gt;(P. 340) 2,3&lt;br&gt;(P. 346) 5,6,7&lt;br&gt;(P. 355) 14,15</td>
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<td>21</td>
<td>Regression theory; the model; the mean and variance of estimation</td>
<td>Chap. 13 and work problems&lt;br&gt;(P. 365) 1,3&lt;br&gt;(P. 376) 4-9&lt;br&gt;(P. 383) 10,11,15</td>
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<td>28</td>
<td>Multiple regression theory</td>
<td>Chap. 14 and work all problems</td>
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<td>May 5</td>
<td>Correlation</td>
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<td>Final Exam will be comprehensive in nature.</td>
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| Grade will be based on 100 total points: | | 30% Exam I  
30% Exam II  
10% Paper  
30% Final Exam |