This document is available online at:

The lecture notes that we will study during the week-in residence are at:
These lecture notes summarize all the essential ideas and methods that we will need in the course.

A work-book version of the lecture notes (same document with some of the derivations blanked out) is at:
http://www2.owen.vanderbilt.edu/bruce.cooil/\Documents/WIR2016-B.pdf

### Reading and Class Schedule During the Week-In-Residence

(All references are to the text: *Essentials of Business Statistics*, by Bowerman, O’Connell, Murphree & Orris, 5th Edition.)

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<th>Date</th>
<th>Lecture</th>
<th>Topic</th>
<th>Reference¹</th>
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<tr>
<td>Aug. 3</td>
<td>Introduction</td>
<td>Introduction to Course</td>
<td>Ch.1: 1.1-1.5, Summary, Glossary &amp; Intro to Software ( pp. 2-15);</td>
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<tr>
<td>Aug. 3</td>
<td>1</td>
<td>Introduction to Probability</td>
<td>Ch. 4: 4.1-4.5 (pp. 150-176); Especially pp. 159-164</td>
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<td>Aug. 3</td>
<td>2</td>
<td>Random Variables &amp; Distributions</td>
<td>Ch. 5: 5.1-5.2 (pp. 184-192)</td>
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<td>Aug. 4</td>
<td>3</td>
<td>The Binomial Distribution</td>
<td>Ch.4: 4.6 (pp. 177-179); Ch. 5: 5.3 (pp. 195-203);</td>
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<td>Aug. 4</td>
<td>4</td>
<td>The Normal Distribution</td>
<td>Ch. 6: 6.1-6.3 (pp. 220-240);</td>
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<td>Aug. 4</td>
<td>Preview</td>
<td>Looking Beyond Lectures 1-4</td>
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<td>Aug. 5</td>
<td>5</td>
<td>Descriptive Statistics &amp; Examples in MINITAB</td>
<td>Ch. 2: 2.4, 2.6 (pp. 56-59, 67-68); Ch. 3: 3.1-3.3 (pp.98-123) (Main Ideas: mean, median, std. dev., stem &amp; leaf, box-plot)</td>
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<td>August 5</td>
<td>6</td>
<td>Central Limit Theorem &amp; Confidence Intervals</td>
<td>Ch. 7-8: 7.1-7.3, 8.1-8.5,</td>
</tr>
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</table>

¹ Please read these sections primarily for main ideas; the chapter sections and pages that are referenced are not meant to include the exercises at the end of each section.
The E-Book Version of the Text & Other Resources

An electronic version of the text and additional student resources are available online at:
http://connect.mcgraw-hill.com/class/emba-statistics. (This is McGraw-Hill’s Connect Plus website: register by entering your e-mail address and the access code that comes with your text.) After logging in, just click on “Statistics for Managerial Decisions.”

The additional resources that come with the e-book include: data sets, and access to outlines and narrated slides for each chapter. Please experiment with these supplements; you may find them illustrative and interesting.

Recommended Approach

A relatively quick way to work through this material would be to read through the referenced sections for main ideas and then to focus on a set of examples that illustrate most of the major ideas and methods. Here is a set of eight such examples.

Lecture 1. Probability Concepts and Notation
Reference: Ch. 4: 4.1-4.5 (pp. 150-176); Especially pp. 159-164.

2. Example 4.11, p. 169.

Lecture 2. Random Variables & Probability Distributions (Mean and Standard Deviation)
Reference: Ch. 5: 5.1-5.2 (pp. 184-192).

3. Example 5.6, pp. 195-196.
4. Example 5.7, p. 198.

Lecture 3. Binomial Distribution
Reference: Ch.4: 4.6 (pp. 177-179); Ch. 5: 5.3 (pp. 195-203); Appendix 5.3 (p. 219).


Lecture 4. Normal Distribution
Reference: Ch. 6: 6.1-6.3 (pp. 220-240); Appendix 6.3 (pp. 256-257).


Lecture 5. Descriptive Statistics
Reference: Ch. 2: 2.4, 2.6 (pp. 56-59, 67-68); Ch. 3: 3.1- 3.3 (pp. 98-123) (Main Ideas: mean, median, standard deviation, stem & leaf, box-plot).

7. Example 2.4, pp. 56-57.
8. Example 3.9, pp. 122-123.
Lecture 6. Central Limit Theorem & Confidence Intervals

Reference: Ch. 7-8: 7.1-7.3, App 7.3, 8.1-8.5, App 8.3 (pp. 258-276, 289, 290-320, 325)

9. Example 8.1, p. 297
10. Example 8.2, p. 303
11. Example 8.7, p. 312

Please do not hesitate to work through other examples for additional illustrations and practice—especially if you find some of the other examples more interesting. This set of eleven examples provides relatively complete coverage of the basic ideas. If you read only that which is necessary to understand the notation and concepts referred to in each example, and then work through the example itself, this alone would be excellent preparation for the week-in-residence!

An alternative approach would be to simply read through the lecture notes and use the text primarily as a reference for additional discussion and examples.